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CITY OF



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REPORT

ON THE

Health of the City of Manchester

FOR

1951

BY

C. METCALFE BROWN,

M.D., D.P.H., BARRISTER-AT-LAW,

MEDICAL OFFICER OF HEALTH



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Medical Officer of Health.

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HEALTH DEPARTMENT,
TOWN HALL,
MANCHESTER, 2.

June 29th, 1952.

MY LORD MAYOR, ALDERMEN AND MEMBERS OF THE CITY COUNCIL,

I have pleasure in presenting my report on the health of the City for the year 1951 which has been compiled in accordance with the memorandum of the Ministry of Health.

The census taken on April 8th, 1951, gives the population of Manchester as 703,175, of which 331,748 are males and 371,427 females. During 1950 there was a re-adjustment of Wards in the City, several new ones being created and boundaries of other Wards altered. As a result of this, and owing to the fact that the census details have not yet been supplied by the Registrar General, the statistics given in the report are based on the estimated population supplied by the Registrar-General for 1951 and the acreage of the Wards given by the City Surveyor.

During the year, 13,318 persons were married in the City, compared with 13,418 in 1950. This number gives a marriage rate of 19·03 per 1,000 of the population as against a rate of 19·05 in 1950. In 1931 the rate was 16·05, whilst in 1940 it reached the height of 28·91. During the years 1941 to 1950 the rate fell from 23·80 to 19·05.

The number of live births registered for the City was 12,438, representing a live birth rate of 17·77 per 1,000 of the population, of which 6,402 were males and 6,036 females. Of the total of live births 52·6 per cent were born in hospitals or registered nursing homes in the City. The birth rate for England and Wales was 15·5 per 1,000 of the population.

In 1951 the number of illegitimate births was 822 which is 6·58 per cent. of the total live births, compared with 7·34 per cent. in 1950. The highest percentage of illegitimate births to total live births was 10·45 in 1945.

The number of stillbirths registered during the year was 319, compared with 333 for 1950. The stillbirth rate (per 1,000 live and stillbirths) for 1951 was 25·01 and is 1·07 lower than that for 1950.

Total deaths from all causes number 9,676, giving a rate of 13·82 per 1,000 persons living. The rate is 5·9 per cent. higher than the average for the previous five years. The total includes 4,827 males and 4,849 females, equal to rates of 14·62 and 13·12 respectively per 1,000 of the population. A table setting out the number of deaths in age groups together with the percentages to total deaths is shown on page 13.

It will be seen from the table that the aggregate number of deaths in the age group 0-5 years represents a percentage to total deaths of 41·84 in 1891, compared with 5·20 per cent. in 1951. Another interesting feature of the table is the rapid increase in the number of persons who died at ages over 65 years. Sixty years ago these represented 13·21 per cent. of the total deaths; to-day they represent 60·53 per cent.

The heaviest mortality was caused by the group including heart disease and other diseases of the circulatory system which accounted for 3,105 deaths, a death rate of 4.44 per 1,000 persons living. Cancer (all forms) was responsible for 1,472 deaths, being a death rate of 2.10 per 1,000 living and causing 15.2 per cent. of the deaths from all causes. The group comprising pneumonia and bronchitis caused 1,424 deaths, a death rate of 2.03 per 1,000 population. Tuberculosis of the respiratory system was the cause of 318 deaths, equal to a death rate of 0.45 per 1,000 persons living, as against 0.58 for 1950. Deaths from non-pulmonary tuberculosis numbered 39 or 0.06 per 1,000 of the population, the figures for 1950 being 47 and 0.07 respectively. The tuberculosis death rates for England and Wales for 1951 were 0.28 for pulmonary and 0.04 for non-pulmonary diseases per 1,000 of the population.

So far as the incidence of tuberculosis in children under the age of 5 years is concerned, the rate for non-pulmonary disease continues to decline. A note of warning must, however, be sounded as regards pulmonary tuberculosis in the same age group. The incidence is increasing. The last 5 years have produced $2\frac{1}{2}$ times as many notifications as the preceding 5 years and almost 4 times as many as the 5 years preceding the outbreak of the second World War. The reason for this, as stated in the report for 1950, can only be that although the waiting period has been much reduced, infectious cases are still not being admitted to sanatoria quickly enough and, in consequence, young children with poor immunity are contracting the disease in increasing numbers.

The number of deaths of children under 1 year of age was 439 and the infant mortality rate 35.29 per 1,000 live births. This is the lowest rate ever recorded in Manchester and is a further indication of the steady progress which is being made by the health service of the City in safeguarding infant life. The rate for England and Wales was 29.6 per 1,000 live births. The number of deaths and the rate in Manchester for 1950 were 471 and 37.87 respectively. The greater proportion of these deaths occur in the first 4 weeks of life and are mainly due to prematurity and congenital malformation. Fifty years ago the number of deaths of infants under 1 year of age in Manchester was 3,114, giving an infant death rate of 198.5 per 1,000 live births.

Deaths from all puerperal causes are represented by a rate of 1.49 per 1,000 total births. The average rate for the preceding 5 years was 1.18. The maternal mortality rate for England and Wales for the year 1951 was 0.79.

The number of notifications of infectious diseases (excepting tuberculosis) which were received by the department in 1951 was 14,773, as against 17,444 in 1950. Statistical data and reports regarding the various diseases will be found on pages 26 to 38. There was a decrease in the number of cases of measles, whooping cough, poliomyelitis and diphtheria. There were only 10 true cases of diphtheria during the year and no deaths from this disease were recorded.

During the year 15,369 Manchester children received complete courses of diphtheria injections. In addition some 28,339 children received a reinforcing course of prophylactic injections; of this number, 26,727 were given the injections at the schools and school clinics. The mobile unit still functions in areas which do not show a good percentage of immunized children under 5 years of age and was responsible for the complete immunization of 2,832 children. At the end of the year 75.10 per cent. of Manchester children had been immunized, the percentage in age groups being 63.29 in 0-4 years and 82.89 in 5-14 years.

During the year under review 384 cases of dysentery were notified as against 566 in 1950. No deaths occurred. Of the 384 cases, 369 were of the mild sonne type and, as in most large towns, the incidence was chiefly in children. A great reduction in the number of cases could be effected, however, if more attention were given to personal cleanliness and better care were exercised in the handling preparation, and storage of foods in the home.

Towards the end of 1951 the two remaining Whooping Cough Vaccine Trials, in which 4,086 children were still receiving routine monthly visits, closed, and this completed the series of 5 Whooping Cough Vaccine Trials which have been in progress in Manchester since 1946.

As a result of an offer by the Medical Research Council of £5,000 worth of whooping cough vaccine, the immunization scheme proposed in the latter part of 1950 commenced on January 2nd, 1951. Immunization of Manchester children between the ages of six months and four years was carried out by three teams visiting the child welfare centres in the City. By December, 1951, a total of 15,686 forms had been received from parents giving consent for their children to be immunized with the vaccine. Of this number 8,398 children received a complete course of inoculations; 2,747 received one or two inoculations and 2,037 children who received inoculations in the early vaccine trials were given a reinforcing injection. The remaining 2,504 children did not attend for inoculation.

In addition, suitable children were chosen from those who completed a course of inoculations for the follow-up of reactions and infections and, as in the past, were kept under observation by a trained investigating staff who made routine monthly visits to the homes, to record necessary information required by the Medical Research Council. The total number of children in this category being visited at the end of the year was 3,570.

The recorded ascertainment of mental deficiency was 3·22 per 1,000 of the population and an estimate of mental illness based on hospital admissions of voluntary, temporary and certified patients gives an incidence of 3·42 per 1,000 of the population. The section of the report devoted to the mental health service stresses the inadequacy of our present knowledge of the true incidence of mental disorder.

Compared with 50 years ago, the public health of Manchester has improved to an extraordinary degree; compared with 10 years ago there has been excellent progress; compared with a year ago the upward trend continues.

It is again a great pleasure to me to record my grateful thanks to the Chairman and Members of the Health Committee for their unfailing encouragement and support in progressive action, and to my colleagues in the Health Department and in other Departments of the Corporation for their continued collaboration and help.

I have the honour to be,

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

CHARLES METCALFE BROWN,

Medical Officer of Health.

HEALTH COMMITTEE

1951-52.

CHAIRMAN—Councillor Mrs. Eveline Hill, M.P., J.P.

DEPUTY CHAIRMAN—Councillor W. Chadwick, M.B., CH.B.

THE LORD MAYOR—Councillor W. Collingson, J.P.

| | | | |
|------------|---|------------|---|
| Alderman | J. E. Burgess | Councillor | E. Elliott, J.P. |
| „ | Alfred James, J.P. | „ | Mary Knight |
| „ | T. M. Larrad, J.P. | „ | A. Littlemore (<i>resigned</i> 17.12.51) |
| „ | Hugh Lee, J.P. | „ | J. McGrath |
| „ | F. E. Tylecote, J.P., M.D., F.R.C.P. | „ | W. Onions, M.B.E., J.P. |
| „ | T. Walker, J.P. | „ | W. Sharp |
| Councillor | Hannah Baldwin, J.P. | „ | W. Shaw (<i>appointed</i> 17.12.51) |
| „ | Nellie Beer, J.P. | „ | A. R. Smith |
| „ | James Bowes | „ | Lily Thomas, J.P. |
| „ | P. Buckley | „ | R. E. Thomas, J.P. |
| „ | P. Chadwick, J.P. | „ | Mabel S. Whittaker, J.P. |

HEALTH OFFICERS.

(A) Medical.

| | |
|--|--|
| C. Metcalfe Brown, M.D., D.P.H., Barrister-at-Law | Medical Officer of Health. |
| A. M. M. Grierson, O.B.E., M.D., D.P.H., F.R.S.E. | Deputy Medical Officer of Health. |
| L. R. L. Edwards, M.D., M.R.C.S., L.R.C.P., D.P.H. | Senior Assistant Medical Officer of Health (<i>resigned</i> 4.11.51). |
| B. J. Griffiths, B.SC., M.R.C.S., L.R.C.P., D.P.H. | Senior Assistant Medical Officer of Health (<i>from</i> 5.11.51). |
| Winifred A. Kane, M.R.C.S., L.R.C.P., D.P.H. | Senior Assistant Medical Officer of Health. |
| Thomas M. Edward, M.B., CH.B. | Assistant Medical Officer of Health (Diphtheria Immunization) (<i>resigned</i> 1.4.51). |
| Marjorie Calderwood, M.B., CH.B., D.(OBST.), R.C.O.G., D.P.H. | Assistant Medical Officer of Health (Diphtheria Immunization) (<i>from</i> 9.4.51). |
| W. Lee, M.B., CH.B. | Tuberculosis Officer — Part-Time (<i>resigned</i> 31.1.51). |
| M. J. Greenberg, M.B., M.R.C.P. | Consultant Chest Physician—Part- Time (<i>from</i> 1.2.51). |

(B) Other Professional.

| | |
|--|---------------------------|
| Alfred N. Leather, B.SC., F.R.I.C. | Public Analyst. |
| J. Lawson, M.R.SAN.I. | Chief Sanitary Inspector. |
| Winifred M. L. Selmes, S.R.N., S.C.M., D.N. | Nursing Organiser. |

GENERAL STATISTICS

The following are general statistics for the year 1951 :—

| | | |
|---|--|-----------------|
| Area of the City in Acres | .. .. . | 27,255 |
| Census population for the year 1951 | { Males .. 331,748 Females 371,427 } | 703,175 |
| Registrar General's estimated population for the year 1951. | | |
| | { Males .. 330,203 Females 369,697 } | 699,900 |
| Comparability factor | { Births 0.95 Deaths 1.11 } | |
| Rateable value (1st April, 1951) | .. .. . | £6,570,103 |
| Sum represented by a penny rate (estimated) | .. .. . | £25,950 |
| No. of persons per acre | .. .. . | 26 |
| Persons married per 1,000 of population | .. .. . | 19.03 |

| | Total | Males | Females | | | | |
|---|------------------------|------------------|---------|----|----|----|--------|
| Live births | { Legitimate .. 11,616 | 5,996 | 5,620 | } | .. | .. | 12,438 |
| | { Illegitimate .. 822 | 406 | 416 | | | | |
| Live-birth rate per 1,000 of population | .. | .. | .. | .. | .. | .. | 17.77 |
| Live-birth rate as adjusted by factor | .. | .. | .. | .. | .. | .. | 16.88 |
| Still-births | | { Males .. 163 | } | .. | .. | .. | 319 |
| | | { Females 156 | | | | | |
| Still-births rate per 1,000 total (live and still) births | .. | .. | .. | .. | .. | .. | 25.01 |
| Deaths | | { Males .. 4,827 | } | .. | .. | .. | 9,676 |
| | | { Females 4,849 | | | | | |
| Death rate per 1,000 of the estimated resident population | | { Males .. 14.62 | } | .. | .. | .. | 13.82 |
| | | { Females 13.12 | | | | | |
| Death rate as adjusted by factor | .. | .. | .. | .. | .. | .. | 15.34 |
| Excess of registered births over deaths | .. | .. | .. | .. | .. | .. | 2,762 |
| Percentage of mortality occurring in public institutions | .. | .. | .. | .. | .. | .. | 40.74 |

Deaths from puerperal causes:—

| | | | |
|------------------------------------|--------|--|-----------|
| | Deaths | Rate per 1,000 total (live and still) births | |
| Puerperal and post-abortive sepsis | 5 | 0.39 | } .. 1.49 |
| Other puerperal causes | 14 | 1.10 | |
| Total | 19 | | |

Death Rate of Infants under one year of age:—

| | | |
|---|---------|-------|
| All infants per 1,000 live births | .. .. . | 35.29 |
| Legitimate infants per 1,000 legitimate live births | .. .. . | 35.03 |
| Illegitimate infants per 1,000 illegitimate live births | .. .. . | 38.93 |

| | | |
|--|---------|---------|
| No. of Occupied Structurally Separate Dwellings at the Census in April, 1931 | .. .. . | 177,430 |
| No. of Inhabited Houses according to Rate Books | .. .. . | 203,900 |
| No. of persons per occupied Structurally Separate Dwelling (Census 1931) | .. .. . | 4.32 |
| No. of persons per house, 1951 (based on 205,716 houses connected with the water supply within the City) | .. .. . | 3.78 |
| No. of new houses erected during 1951:— | | |
| By Local Authority (including 51 Flats over shops) | .. .. . | 2,426 |
| By other bodies or persons (including 7 Flats) | .. .. . | 204 |
| | | 2,630 |

The City of Manchester is one of the largest centres in the industrial north, and almost two million people reside in the forty adjacent townships. Road and rail communications, and the Port of Manchester, have combined to retain the City's important position in the world of industry and commerce and its business links with other lands.

Comprehensive housing schemes are gradually causing the poorer centralised inhabited sites to disappear, and to the north and south of the City there are now large self-contained housing estates, which have been quoted as examples of the best modern methods.

The surface level of the City varies from about 80 feet in the south to 300 feet in the north, and it is intersected by the five rivers, Mersey, Medlock, Irwell, Irk, and Tib. The latter, a small stream, has been culverted.

The City is important as a Hospital Centre and Medical School. Its University claims some prominence in the realm of research, especially in the field of Physics. Nearly 60,000 persons are employed in the Engineering and Clothing trades in the City, which is an important focal point in the production of cotton, steel, coal, rubber, and chemicals.

METEOROLOGY, 1951.

Means of the Monthly Readings from Whitworth Observatory, Manchester.

| | Wet Bulb | Dry Bulb | Mean Maximum Temperature | Mean Minimum Temperature | Mean Temperature | Total Rainfall (inches) | Total Number of Wet Days | Total Hours of Sunshine | Number of Days on which Fog was noted at 09.00 G.M.T. |
|-----------------|----------|----------|--------------------------|--------------------------|------------------|-------------------------|--------------------------|-------------------------|---|
| January | 37.8 | 39.2 | 42.6 | 35.2 | 38.9 | 3.23 | 22 | 21.08 | 4 |
| February | 37.9 | 39.7 | 44.3 | 34.5 | 39.4 | 2.12 | 23 | 26.60 | 3 |
| March | 38.5 | 41.6 | 42.2 | 33.2 | 38.7 | 4.57 | 20 | 50.84 | — |
| April | 41.6 | 46.8 | 51.2 | 36.7 | 43.9 | 2.16 | 14 | 141.90 | — |
| May | 45.7 | 49.8 | 57.3 | 42.8 | 50.1 | 2.19 | 15 | 184.14 | — |
| June | 51.8 | 57.4 | 65.6 | 47.9 | 56.7 | .86 | 9 | 224.70 | — |
| July | 58.3 | 63.3 | 68.4 | 54.5 | 61.5 | 3.25 | 12 | 155.62 | — |
| August | 55.0 | 57.8 | 65.7 | 53.1 | 59.4 | 4.42 | 23 | 105.09 | 3 |
| September | 55.1 | 57.6 | 64.8 | 52.1 | 58.5 | 2.99 | 15 | 95.40 | 3 |
| October | 48.6 | 51.4 | 57.7 | 45.2 | 51.5 | 1.27 | 9 | 86.49 | 2 |
| November | 45.2 | 46.6 | 51.3 | 42.8 | 47.1 | 6.72 | 26 | 44.70 | — |
| December | 40.7 | 42.6 | 45.5 | 37.2 | 41.3 | 5.50 | 27 | 21.08 | 7 |
| YEAR .. | 46.4 | 49.5 | 57.2 | 42.9 | 48.9 | 39.20 | 215 | 1157.64 | 22 |
| Means | | | | | | Totals | | | |

The Meteorological Station situated at the Corporation Cleansing Yard, 299, Oldham Road, which had been in operation since 1892, was dismantled in June, 1938. This was necessary on account of further accommodation being required for building purposes of the Cleansing Committee. After communication with the Air Ministry they considered that the records taken at the Meteorological Station connected with the Manchester University in Whitworth Park were sufficient for their purpose.

Birth Rate, Death Rate, and Analysis of Mortality, 1951, in England and Wales,
Grouped Areas, London and Manchester.

| | BIRTH RATE PER 1,000 TOTAL POPULATION | | ANNUAL DEATH RATE PER 1,000 POPULATION | | | | | | | | | | RATE PER 1,000 LIVE BIRTHS | |
|--|--|-----------------|--|--|-------------------|------------|--------------|-----------|----------|---|-----------|---|----------------------------------|--|
| | Live Births | Still Births | All Causes | Typhoid and Paratyphoid Fever | Whooping Cough | Diphtheria | Tuberculosis | Influenza | Smallpox | Acute Poliomyelitis and Polioencephalitis | Pneumonia | Diarrhoea and Enteritis (under two years) | Total Deaths (under one year) | |
| | | | | | | | | | | | | | | |
| England and Wales | 15.5 | 0.36 | 12.5 | 0.00 | 0.01 | 0.00 | 0.31 | 0.38 | 0.00 | 0.00 | 0.61 | 1.4 | 29.6 | |
| 126 County Boroughs and Great Towns, including London.. | 17.3 | 0.45 | 13.4 | 0.00 | 0.01 | 0.00 | 0.37 | 0.36 | 0.00 | 0.01 | 0.65 | 1.6 | 33.9 | |
| 148 Smaller Towns, estimated Resident Population 25,000 to 50,000 at 1931 Census.. | 16.7 | 0.38 | 12.5 | 0.00 | 0.01 | 0.00 | 0.31 | 0.38 | 0.00 | 0.01 | 0.63 | 1.0 | 27.6 | |
| London Administrative County | 17.8 | 0.37 | 13.1 | — | 0.01 | 0.00 | 0.38 | 0.23 | — | 0.00 | 0.61 | 0.7 | 26.4 | |
| Manchester | 17.8 | 0.46 | 13.8 | 0.00 | 0.00 | — | 0.51 | 0.37 | — | 0.00 | 0.59 | 2.4 | 35.3 | |

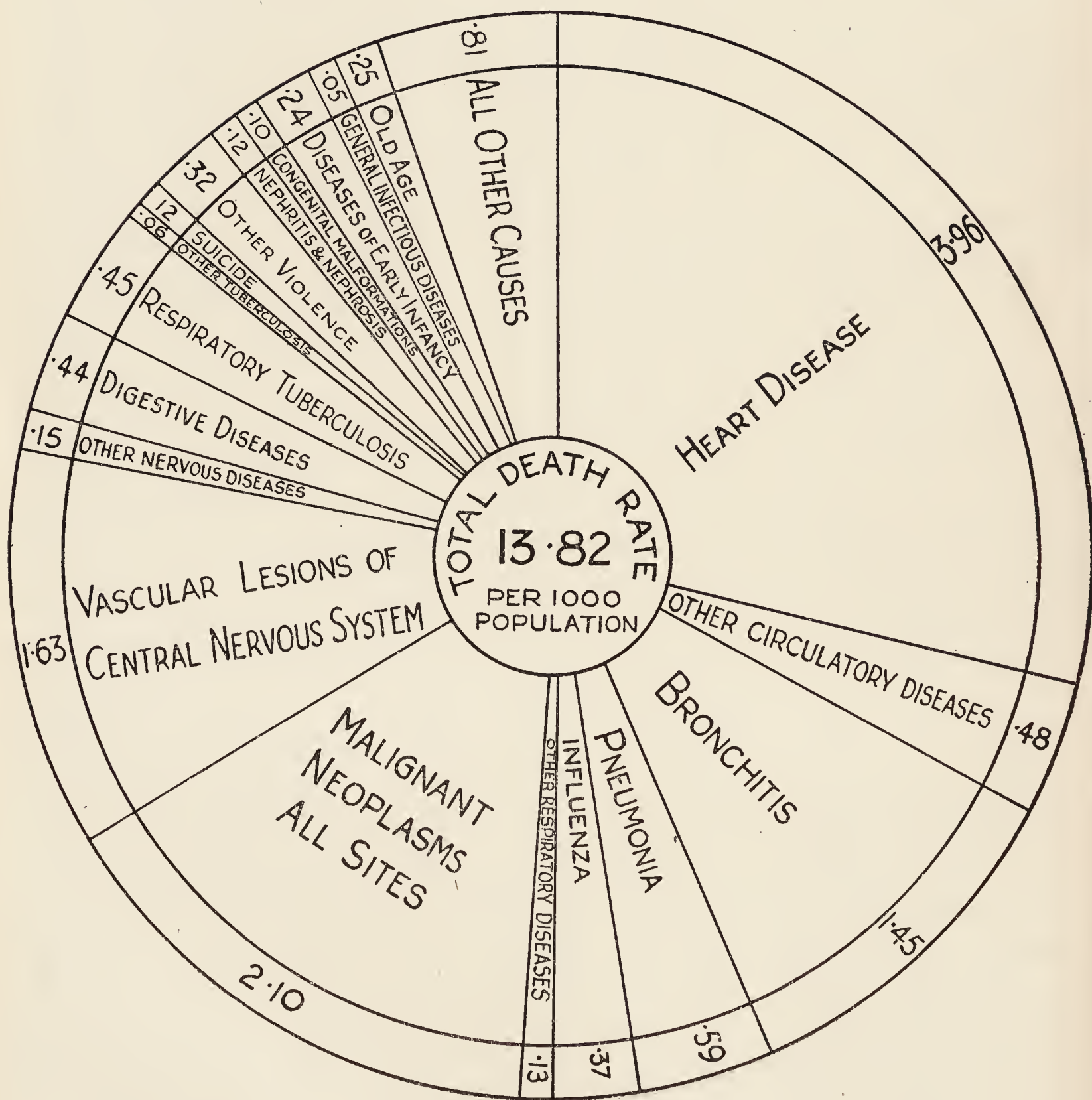
A dash (—) signifies that there were no deaths.

CAUSES OF DEATH, 1951.
Registrar General's Return.
Manchester.

| CAUSES OF DEATH | AGES AT DEATH | | | | | | | | | | |
|---|---------------|--------|----------|-----------------|-----------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------|
| | Male | Female | All Ages | Under 1 Year | 1 Year and Under 5 Years | 5 Years and Under 15 Years | 15 Years and under 25 Years | 25 Years and Under 45 Years | 45 Years and Under 65 Years | 65 Years and Under 75 Years | 75 Years and Over |
| Tuberculosis, Respiratory | 200 | 118 | 318 | 2 | — | — | 25 | 109 | 134 | 38 | 10 |
| ,, Other | 18 | 21 | 39 | 2 | 7 | 6 | 8 | 7 | 7 | 2 | — |
| Syphilitic Disease | 16 | 11 | 27 | 1 | — | — | — | 5 | 12 | 6 | 3 |
| Diphtheria | — | — | — | — | — | — | — | — | — | — | — |
| Whooping Cough | 2 | 1 | 3 | 2 | — | 1 | — | — | — | — | — |
| Meningococcal Infections | 4 | 1 | 5 | 1 | 2 | — | — | 1 | 1 | — | — |
| Acute Poliomyelitis | 1 | 1 | 2 | — | 1 | — | — | 1 | — | — | — |
| Measles | — | 1 | 1 | 1 | — | — | — | — | — | — | — |
| Other Infective and Parasitic Diseases | 9 | 15 | 24 | 3 | 1 | — | 1 | 5 | 4 | 8 | 2 |
| Malignant Neoplasm, Stomach | 138 | 124 | 262 | — | — | — | — | 12 | 101 | 100 | 49 |
| ,, ,, Lung, Bronchus | 284 | 45 | 329 | — | — | — | — | 18 | 179 | 103 | 29 |
| ,, ,, Breast | 1 | 136 | 137 | — | — | — | — | 12 | 67 | 30 | 28 |
| ,, ,, Uterus | — | 55 | 55 | — | — | — | — | 9 | 20 | 14 | 12 |
| Other Malignant and Lymphatic Neoplasms | 355 | 334 | 689 | 1 | 1 | 4 | 3 | 55 | 249 | 208 | 168 |
| Leukaemia, Alckaemia | 16 | 19 | 35 | — | 3 | 2 | 3 | 6 | 11 | 7 | 3 |
| Diabetes | 21 | 42 | 63 | — | — | — | 1 | 6 | 18 | 27 | 11 |
| Vascular Lesions of Nervous System .. | 466 | 676 | 1142 | 1 | — | — | 1 | 22 | 250 | 402 | 466 |
| Coronary Disease, Angina | 474 | 285 | 759 | — | — | — | — | 27 | 278 | 294 | 160 |
| Hypertension with Heart Disease .. | 142 | 171 | 313 | — | — | — | — | 4 | 65 | 129 | 115 |
| Other Heart Disease | 680 | 1014 | 1694 | — | — | — | 19 | 83 | 272 | 464 | 856 |
| Other Circulatory Disease | 160 | 179 | 339 | 1 | 1 | — | 2 | 10 | 49 | 93 | 183 |
| Influenza | 120 | 137 | 257 | 3 | 1 | — | 1 | 12 | 63 | 97 | 80 |
| Pneumonia | 200 | 212 | 412 | 55 | 14 | 1 | — | 15 | 101 | 111 | 115 |
| Bronchitis | 599 | 413 | 1012 | 15 | 2 | — | — | 7 | 290 | 351 | 347 |
| Other Diseases of Respiratory System .. | 56 | 34 | 90 | 1 | — | — | 2 | 12 | 25 | 19 | 31 |
| Ulcer of Stomach and Duodenum .. | 59 | 22 | 81 | — | — | — | — | 11 | 30 | 21 | 19 |
| Gastritis, Enteritis and Diarrhoea .. | 31 | 29 | 60 | 34 | — | — | 1 | 1 | 10 | 8 | 6 |
| Nephritis and Nephrosis | 37 | 44 | 81 | 1 | 1 | 1 | 5 | 11 | 32 | 14 | 16 |
| Hyperplasia of Prostate | 56 | — | 56 | — | — | — | — | — | 7 | 20 | 29 |
| Pregnancy, Childbirth, Abortion .. | — | 19 | 19 | — | — | — | 5 | 14 | — | — | — |
| Congenital Malformations | 37 | 36 | 73 | 50 | 4 | 3 | 1 | 7 | 6 | 1 | 1 |
| Other Defined and Ill-defined Diseases .. | 444 | 556 | 1000 | 244 | 12 | 8 | 7 | 69 | 194 | 178 | 288 |
| Motor Vehicle Accidents | 52 | 18 | 70 | — | 5 | 6 | 6 | 14 | 20 | 9 | 10 |
| All Other Accidents | 90 | 47 | 137 | 21 | 9 | 6 | 9 | 20 | 28 | 18 | 26 |
| Suicide | 53 | 28 | 81 | — | — | — | 2 | 20 | 38 | 17 | 4 |
| Homicide and Operations of War .. | 6 | 5 | 11 | — | — | — | — | 3 | 7 | 1 | — |
| TOTALS .. | 4827 | 4849 | 9676 | 439 | 64 | 38 | 102 | 608 | 2568 | 2790 | 3067 |

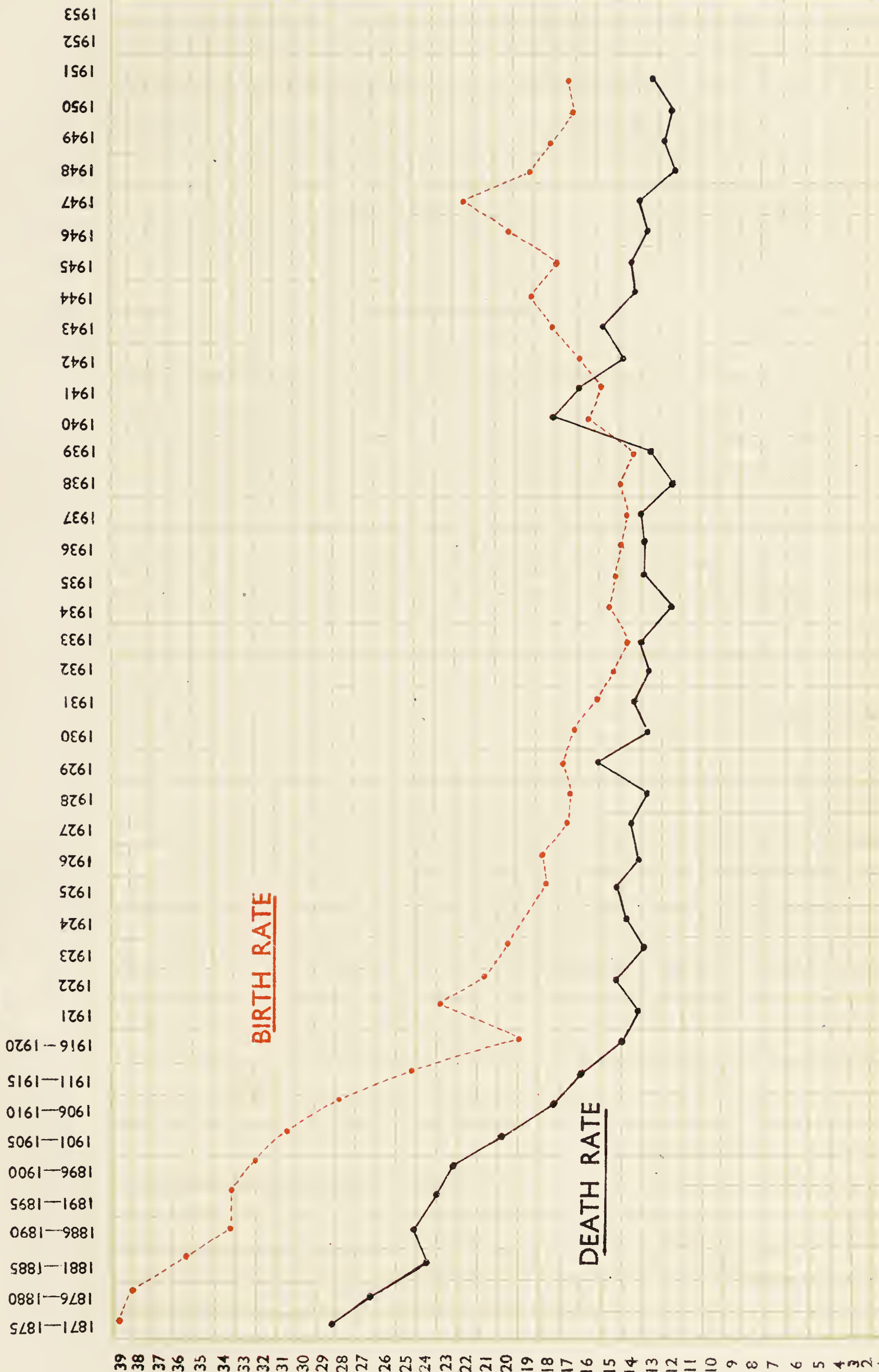
A table showing the mortality rates due to various causes, etc., from 1911 onwards appears at the end of the report.

CITY OF MANCHESTER
Deaths from Principal Causes
Proportion to Total Deaths 1951



CITY OF MANCHESTER

BIRTH AND DEATH RATES PER 1000 OF THE POPULATION



CITY OF MANCHESTER.

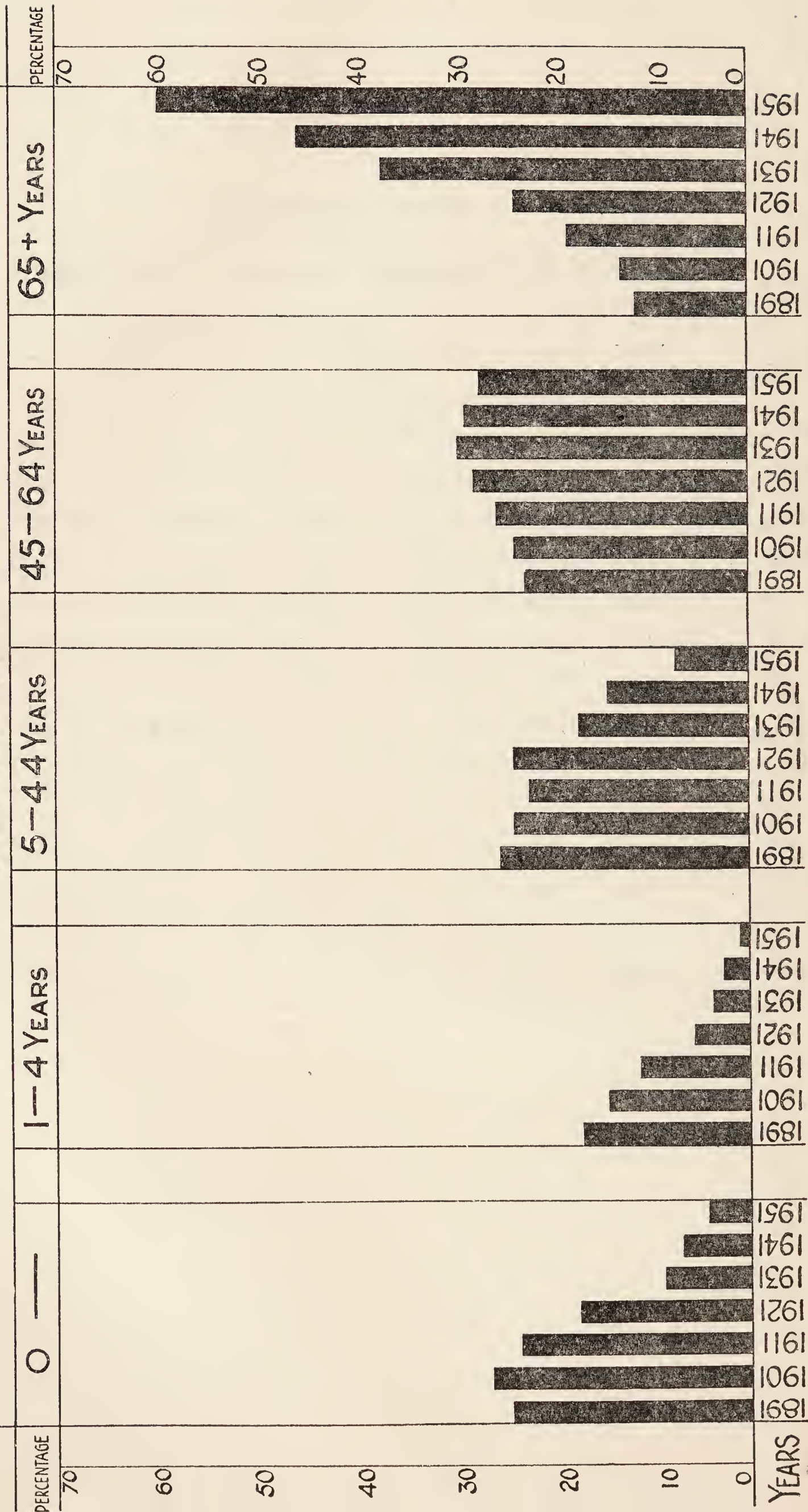
Deaths in Age Groups and Percentages to Total Deaths.

| Year | Total Number of Deaths | Age Groups and Percentages | | | | | | | | | |
|---------|------------------------------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0— | | 1—4 | | 5—44 | | 45—64 | | 65+ | |
| | | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1891 .. | 13,202 | 3,299 | 24·99 | 2,225 | 16·85 | 3,178 | 24·07 | 2,756 | 20·88 | 1,744 | 13·21 |
| 1895 .. | 12,915 | 3,566 | 27·61 | 2,233 | 17·29 | 2,921 | 22·62 | 2,565 | 19·86 | 1,630 | 12·62 |
| 1901 .. | 11,801 | 3,114 | 26·39 | 1,676 | 14·20 | 2,725 | 23·09 | 2,627 | 22·26 | 1,659 | 14·06 |
| 1905 .. | 11,258 | 2,909 | 25·84 | 1,350 | 11·99 | 2,515 | 22·34 | 2,569 | 22·82 | 1,915 | 17·01 |
| 1911 .. | 12,272 | 2,901 | 23·64 | 1,516 | 12·35 | 2,711 | 22·09 | 2,790 | 22·74 | 2,354 | 19·18 |
| 1915 .. | 12,179 | 2,136 | 17·54 | 1,398 | 11·48 | 2,721 | 22·34 | 3,058 | 25·11 | 2,866 | 23·53 |
| 1921 .. | 10,093 | 1,707 | 16·91 | 728 | 7·21 | 2,313 | 22·92 | 2,687 | 26·62 | 2,658 | 26·34 |
| 1925 .. | 10,916 | 1,353 | 12·39 | 802 | 7·35 | 2,154 | 19·73 | 3,150 | 28·86 | 3,457 | 31·67 |
| 1931 .. | 10,618 | 1,027 | 9·67 | 503 | 4·74 | 1,943 | 18·30 | 3,144 | 29·61 | 4,001 | 37·68 |
| 1935 .. | 10,019 | 804 | 8·03 | 338 | 3·37 | 1,723 | 17·20 | 3,031 | 30·25 | 4,123 | 41·15 |
| 1941 .. | 10,016 | 832 | 8·31 | 265 | 2·65 | 1,467 | 14·65 | 2,886 | 28·81 | 4,566 | 45·58 |
| 1945 .. | 8,985 | 634 | 7·05 | 111 | 1·24 | 972 | 10·82 | 2,591 | 28·84 | 4,677 | 52·05 |
| 1951 .. | 9,676 | 439 | 4·54 | 64 | 0·66 | 748 | 7·73 | 2,568 | 26·54 | 5,857 | 60·53 |

CITY OF MANCHESTER

PERCENTAGES OF DEATHS IN VARIOUS AGE GROUPS TO TOTAL DEATHS 1891 ~ 1951

AGE GROUPS



Manchester, 1951—Deaths in Wards for Various Diseases and Death Rates per 1,000 of the Population.
(Figures Compiled by Medical Officer of Health for 52 Weeks.)

| WARDS | ESTIMATED POPULATION | WHOOPING COUGH | | DIPHTHERIA | | MEASLES | | TUBERCULOSIS ALL FORMS | | SYPHILITIC DISEASES | | DISEASES OF CIRCULATORY SYSTEM | | *MALIGNANT NEOPLASMS | | PNEUMONIA (4 Weeks +) | | BRONCHITIS | | DIGESTIVE SYSTEM | | GENITO URINARY SYSTEM | | ALL CAUSES | |
|--------------------------|-------------------------|-------------------|------|------------|------|---------|------|---------------------------|------|------------------------|------|--------------------------------------|------|-------------------------|------|--------------------------|------|------------|------|---------------------|------|-----------------------------|------|---------------|-------|
| | | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate | Deaths | Rate |
| CITY OF MANCHESTER.. | 699900 | 3 | — | — | — | 1 | — | 357 | ·51 | 26 | ·04 | 3105 | 4·44 | 1495 | 2·14 | 410 | ·59 | 1000 | 1·42 | 307 | ·40 | 203 | ·29 | 9676 | 13·82 |
| Alexandra Park | 21750 | — | — | — | — | — | — | 10 | ·46 | — | — | 95 | 4·38 | 43 | 1·98 | 11 | ·16 | 16 | ·74 | 5 | ·23 | 9 | ·41 | 255 | 11·72 |
| All Saints' | 19244 | — | — | — | — | — | — | 17 | ·88 | 1 | ·05 | 81 | 4·21 | 31 | 1·61 | 20 | 1·04 | 32 | 1·66 | 9 | ·47 | 4 | ·21 | 280 | 14·55 |
| Ardwick | 18390 | — | — | — | — | — | — | 12 | ·65 | 2 | ·11 | 88 | 4·79 | 48 | 2·61 | 13 | ·71 | 30 | 1·63 | 11 | ·60 | 4 | ·22 | 294 | 15·99 |
| Barlow Moor | 15475 | — | — | — | — | — | — | 6 | ·39 | 1 | ·06 | 96 | 6·20 | 35 | 2·26 | 27 | 1·74 | 24 | 1·55 | 14 | ·90 | 6 | ·38 | 305 | 19·71 |
| Beswick | 20142 | — | — | — | — | — | — | 12 | ·60 | — | — | 90 | 4·47 | 49 | 2·43 | 14 | ·70 | 41 | 2·04 | 9 | ·45 | 6 | ·30 | 309 | 15·34 |
| Blackley | 20523 | — | — | — | — | — | — | 8 | ·39 | — | — | 91 | 4·43 | 41 | 2·00 | 10 | ·49 | 18 | ·88 | 12 | ·58 | 7 | ·34 | 256 | 12·47 |
| Bradford | 23543 | — | — | — | — | — | — | 15 | ·64 | — | — | 95 | 4·04 | 55 | 2·34 | 9 | ·38 | 36 | 1·52 | 13 | ·55 | 6 | ·25 | 311 | 13·21 |
| Burnage | 22646 | — | — | — | — | — | — | 9 | ·40 | 1 | ·04 | 98 | 4·33 | 55 | 2·43 | 6 | ·26 | 19 | ·84 | 8 | ·35 | 4 | ·18 | 282 | 12·45 |
| Cheetham | 14648 | — | — | — | — | — | — | 6 | ·41 | 1 | ·07 | 77 | 5·26 | 27 | 1·84 | 8 | ·55 | 17 | 1·16 | 12 | ·82 | 4 | ·27 | 216 | 14·75 |
| Chorlton-cum-Hardy | 20606 | 1 | ·05 | — | — | — | — | 9 | ·44 | — | — | 97 | 4·71 | 40 | 1·94 | 12 | ·58 | 14 | ·68 | 10 | ·49 | 12 | ·58 | 280 | 13·59 |
| Collegiate Church | 14350 | — | — | — | — | — | — | 13 | ·91 | — | — | 87 | 6·06 | 33 | 2·30 | 10 | ·70 | 24 | 1·67 | 7 | ·47 | 9 | ·63 | 233 | 16·24 |
| Crumpsall | 22371 | — | — | — | — | — | — | 3 | ·13 | — | — | 107 | 4·78 | 48 | 2·14 | 12 | ·54 | 18 | ·80 | 7 | ·31 | 8 | ·36 | 275 | 12·29 |
| Didsbury | 17168 | — | — | — | — | — | — | 1 | ·06 | 1 | ·06 | 64 | 3·73 | 38 | 2·21 | 6 | ·35 | 13 | ·76 | 3 | ·17 | 11 | ·64 | 187 | 10·89 |
| Gorton North | 23511 | — | — | — | — | — | — | 10 | ·43 | 1 | ·04 | 114 | 4·85 | 49 | 2·08 | 16 | ·68 | 55 | 2·33 | 6 | ·26 | 9 | ·38 | 347 | 14·75 |
| Gorton South | 18075 | — | — | — | — | — | — | 7 | ·39 | 2 | ·11 | 88 | 4·87 | 41 | 2·27 | 9 | ·50 | 26 | 1·44 | 4 | ·22 | 8 | ·44 | 237 | 13·11 |
| Harpurhey | 19101 | — | — | — | — | — | — | 11 | ·58 | — | — | 90 | 4·71 | 47 | 2·46 | 8 | ·41 | 41 | 2·15 | 10 | ·52 | 4 | ·21 | 270 | 14·14 |
| Levenshulme | 20067 | — | — | — | — | — | — | 9 | ·45 | — | — | 106 | 5·28 | 44 | 2·19 | 8 | ·40 | 24 | 1·20 | 8 | ·40 | 4 | ·20 | 307 | 15·30 |
| Lightbowne | 20849 | — | — | — | — | — | — | 14 | ·67 | — | — | 76 | 3·65 | 51 | 2·44 | 7 | ·34 | 34 | 1·63 | 14 | ·67 | 2 | ·10 | 276 | 13·24 |
| Longsight | 16300 | — | — | — | — | — | — | 7 | ·43 | — | — | 66 | 4·05 | 49 | 3·01 | 9 | ·55 | 29 | 1·78 | 9 | ·55 | 7 | ·43 | 254 | 15·58 |
| Miles Platting | 15375 | — | — | — | — | — | — | 7 | ·46 | — | — | 68 | 4·42 | 32 | 2·08 | 8 | ·52 | 34 | 2·21 | 2 | ·13 | 3 | ·20 | 227 | 14·76 |
| Moss Side East | 19533 | — | — | — | — | — | — | 9 | ·46 | — | — | 97 | 4·97 | 40 | 2·05 | 12 | ·61 | 19 | ·97 | 10 | ·51 | 5 | ·26 | 276 | 14·13 |
| Moss Side West | 19212 | 1 | ·05 | — | — | — | — | 9 | ·47 | 1 | ·05 | 74 | 3·85 | 50 | 2·60 | 12 | ·62 | 36 | 1·87 | 11 | ·57 | 4 | 2·08 | 287 | 14·93 |
| Moston | 20668 | — | — | — | — | — | — | 5 | ·24 | — | — | 73 | 3·53 | 38 | 1·84 | 7 | ·34 | 27 | 1·31 | 5 | ·24 | 1 | ·05 | 232 | 11·23 |
| New Cross | 14977 | — | — | — | — | 1 | ·07 | 17 | 1·13 | 1 | ·07 | 88 | 5·88 | 32 | 2·14 | 15 | 1·00 | 35 | 2·34 | 1 | ·07 | 6 | ·40 | 272 | 18·16 |
| Newton Heath | 19729 | — | — | — | — | — | — | 11 | ·56 | — | — | 102 | 5·17 | 51 | 2·59 | 13 | ·66 | 53 | 2·69 | 5 | ·25 | 3 | ·15 | 321 | 16·27 |
| Newtown | 20425 | — | — | — | — | — | — | 18 | ·88 | 4 | ·20 | 82 | 4·01 | 33 | 1·62 | 17 | ·83 | 57 | 2·79 | 12 | ·59 | 3 | ·15 | 330 | 16·16 |
| Northenden | 18711 | — | — | — | — | — | — | 8 | ·43 | — | — | 65 | 3·47 | 38 | 2·03 | 4 | ·21 | 20 | 1·07 | 6 | ·32 | 1 | ·05 | 192 | 10·26 |
| Old Moat | 17212 | — | — | — | — | — | — | 6 | ·35 | 1 | ·06 | 79 | 4·59 | 32 | 1·86 | 6 | ·35 | 14 | ·81 | 10 | ·58 | 5 | ·29 | 209 | 12·14 |
| Openshaw | 23422 | — | — | — | — | — | — | 8 | ·34 | — | — | 107 | 4·57 | 59 | 2·51 | 15 | ·64 | 34 | 1·45 | 12 | ·51 | 4 | ·17 | 337 | 14·39 |
| Rusholme | 17457 | — | — | — | — | — | — | 9 | ·52 | — | — | 79 | 4·52 | 34 | 1·95 | 6 | ·34 | 9 | ·52 | 7 | ·40 | 8 | ·46 | 211 | 12·09 |
| St. George's | 19958 | — | — | — | — | — | — | 9 | ·45 | 3 | ·15 | 96 | 4·81 | 41 | 2·05 | 24 | 1·20 | 39 | 1·95 | 9 | ·45 | 10 | ·50 | 324 | 16·23 |
| St. Luke's | 18858 | — | — | — | — | — | — | 17 | ·90 | 1 | ·05 | 94 | 4·98 | 40 | 2·12 | 13 | ·69 | 35 | 1·86 | 7 | ·37 | 8 | ·42 | 309 | 16·39 |
| St. Mark's | 21662 | 1 | ·05 | — | — | — | — | 11 | ·51 | 3 | ·14 | 87 | 4·01 | 51 | 2·35 | 15 | ·69 | 29 | 1·34 | 7 | ·32 | 3 | ·14 | 271 | 12·51 |
| St. Peters | 11857 | — | — | — | — | — | — | 6 | ·51 | 1 | ·08 | 33 | 2·78 | 15 | 1·26 | 5 | ·42 | 14 | 1·18 | 4 | ·34 | 3 | ·25 | 120 | 10·12 |
| Withington | 15387 | — | — | — | — | — | — | 1 | ·06 | — | — | 62 | 4·03 | 34 | 2·21 | 6 | ·39 | 12 | ·75 | 7 | ·45 | 2 | ·13 | 183 | 11·89 |
| Wythenshawe.. .. . | 36698 | — | — | — | — | — | — | 27 | ·74 | 1 | ·03 | 113 | 3·08 | 51 | 1·39 | 17 | ·46 | 22 | ·60 | 21 | ·57 | 10 | ·27 | 401 | 10·92 |

* Includes Neoplasms of Lymphatic and Haematopoietic Tissues.

CITY OF MANCHESTER

| WARDS | Estimated populations | Area in acres | Persons per acre | Live Births | | Deaths | | Natural rate of Increase | Deaths under 1 year per 1,000 live births |
|-----------------------|-----------------------|---------------|------------------|-------------|---------------------|--------|---------------------|--------------------------|---|
| | | | | Total | Rate per 1,000 pop. | Total | Rate per 1,000 pop. | | |
| | | | | | | | | | |
| CITY OF MANCHESTER .. | 699900 | 27255 | 25.68 | 12438 | 17.77 | 9676 | 13.82 | + | 35.29 |
| Alexandra Park .. | 21750 | 780 | 27.88 | 229 | 10.53 | 255 | 11.72 | — | 17.47 |
| All Saints .. | 19244 | 315 | 61.09 | 515 | 26.76 | 280 | 14.55 | + | 50.49 |
| Ardwick .. | 18390 | 436 | 42.18 | 456 | 24.80 | 294 | 15.61 | + | 35.09 |
| Barlow Moor .. | 15475 | 1120 | 13.82 | 182 | 11.76 | 305 | 19.71 | — | 32.97 |
| Beswick.. .. | 20142 | 243 | 82.89 | 400 | 19.85 | 309 | 15.34 | + | 22.50 |
| Blackley .. | 20523 | 1226 | 16.74 | 354 | 17.25 | 256 | 12.47 | + | 42.37 |
| Bradford .. | 23543 | 772 | 30.50 | 415 | 17.63 | 311 | 13.21 | + | 19.28 |
| Burnage .. | 22646 | 737 | 30.73 | 216 | 9.54 | 282 | 12.45 | — | 23.15 |
| Cheetham .. | 14648 | 446 | 32.84 | 235 | 16.04 | 216 | 14.75 | + | 46.81 |
| Chorlton-cum-Hardy .. | 20606 | 849 | 24.27 | 247 | 11.99 | 280 | 13.59 | — | 44.53 |
| Collegiate Church .. | 14350 | 501 | 28.64 | 285 | 19.86 | 233 | 16.23 | + | 3.51 |
| Crumpsall .. | 22371 | 1805 | 12.39 | 313 | 13.99 | 275 | 12.29 | + | 44.73 |
| Didsbury .. | 17168 | 1181 | 14.53 | 189 | 11.00 | 187 | 10.89 | + | 26.46 |
| Gorton North .. | 23511 | 540 | 43.54 | 325 | 13.82 | 347 | 14.76 | — | 24.62 |
| Gorton South .. | 18075 | 631 | 28.65 | 241 | 13.33 | 237 | 13.11 | + | 4.14 |
| Harpurhey .. | 19101 | 372 | 51.35 | 400 | 20.94 | 270 | 14.14 | + | 35.00 |
| Levenshulme .. | 20067 | 606 | 33.11 | 228 | 11.36 | 307 | 15.30 | — | 35.08 |
| Lightbowne .. | 20849 | 390 | 53.46 | 270 | 12.95 | 276 | 13.24 | — | 29.62 |
| Longsight .. | 16300 | 355 | 45.92 | 230 | 14.11 | 254 | 15.58 | — | 21.74 |
| Miles Platting .. | 15375 | 444 | 34.63 | 322 | 20.94 | 227 | 14.76 | + | 62.11 |
| Moss Side East .. | 19533 | 277 | 70.52 | 503 | 25.75 | 276 | 14.13 | + | 31.81 |
| Moss Side West .. | 19212 | 268 | 71.69 | 386 | 20.09 | 287 | 14.94 | + | 46.63 |
| Moston .. | 20668 | 1170 | 17.66 | 341 | 16.50 | 232 | 11.23 | + | 35.19 |
| New Cross .. | 14977 | 354 | 42.31 | 403 | 26.91 | 272 | 18.16 | + | 37.22 |
| Newton Heath .. | 19729 | 905 | 21.80 | 333 | 16.88 | 321 | 16.27 | + | 36.03 |
| Newtown .. | 20425 | 498 | 41.01 | 587 | 28.74 | 330 | 16.16 | + | 42.54 |
| Northenden .. | 18711 | 2230 | 8.39 | 258 | 13.79 | 192 | 10.26 | + | 38.76 |
| Old Moat .. | 17212 | 624 | 27.58 | 219 | 12.72 | 209 | 12.11 | + | 45.66 |
| Openshaw .. | 23422 | 543 | 43.13 | 345 | 14.73 | 337 | 14.39 | + | 46.38 |
| Rusholme .. | 17457 | 726 | 24.04 | 232 | 13.29 | 211 | 12.09 | + | 21.55 |
| St. George's .. | 19958 | 318 | 62.76 | 487 | 24.40 | 324 | 16.23 | + | 39.01 |
| St. Luke's .. | 18858 | 287 | 65.71 | 457 | 24.23 | 309 | 16.39 | + | 35.01 |
| St. Mark's .. | 21662 | 517 | 41.90 | 384 | 17.73 | 271 | 12.51 | + | 23.44 |
| St. Peter's .. | 11857 | 837 | 14.17 | 198 | 16.70 | 120 | 10.12 | + | 40.40 |
| Withington .. | 15387 | 560 | 27.48 | 162 | 10.53 | 183 | 11.89 | — | 43.21 |
| Wythenshawe .. | 36698 | 3392 | 10.82 | 1091 | 29.73 | 401 | 10.93 | + | 34.83 |

Manchester—Estimated Populations. Annual Rates of Marriages, Births, and Deaths (a) from All Causes, (b) from Specified Causes, and (c) Infant Mortality; also the Percentages to Total Deaths of Inquest Cases and of Deaths in Public Institutions; also Quinquennial Averages, 1871—1951.

| Year | Estimated Population (Mean) | Marriage Rate per 1,000 persons living | Annual Rates per 1,000 persons living | | | | | | | | | | Percentage to Total Deaths | | Infant Mortality | Year | | |
|-----------|--------------------------------|--|---------------------------------------|------------------------|----------|---------|---------------|------------|-------------------|--------------|-------------------------------------|------------------------------|------------------------------------|----------|------------------|------|---------------|-------------------------------------|
| | | | Births | Deaths (all causes) | Smallpox | Measles | Scarlet Fever | Diphtheria | Whooping Cough | Typhus Fever | Typhoid and Paratyphoid Fever | Simple Continued Fever | Diarrhoea 4 Weeks to 2 Years | Violence | | | Inquest Cases | Deaths in Public Institutions |
| 1871-1875 | 477,344 | 24.6 | 38.9 | 28.3 | 0.26 | 0.64 | 1.08 | 0.08 | 0.78 | 0.14 | 0.43 | 0.21 | 1.95 | 0.94 | 7.2 | 13.4 | 198 | .. 1871-1875 |
| 1876-1880 | 509,802 | 18.6 | 38.7 | 26.2 | 0.24 | 0.53 | 1.07 | 0.13 | 0.84 | 0.08 | 0.29 | 0.11 | 1.26 | 0.89 | 7.5 | 14.3 | 172 | .. 1876-1880 |
| 1881-1885 | 542,746 | 17.9 | 35.1 | 23.6 | 0.04 | 0.71 | 0.48 | 0.10 | 0.68 | 0.05 | 0.20 | 0.03 | 0.99 | 0.72 | 7.0 | 15.9 | 175 | .. 1881-1885 |
| 1886-1890 | 575,630 | 16.6 | 33.4 | 24.6 | 0.02 | 0.83 | 0.50 | 0.32 | 0.54 | 0.02 | 0.30 | 0.01 | 1.08 | 0.78 | 6.9 | 17.7 | 183 | .. 1886-1890 |
| 1891-1895 | 517,801 | 16.9 | 33.2 | 23.6 | 0.03 | 0.62 | 0.26 | 0.27 | 0.64 | 0.00 | 0.24 | 0.01 | 1.19 | 0.77 | 7.1 | 19.2 | 186 | .. 1891-1895 |
| 1896-1900 | 539,599 | 18.2 | 32.5 | 22.7 | .. | 0.89 | 0.20 | 0.13 | 0.53 | 0.00 | 0.18 | 0.01 | 1.69 | 0.73 | 7.1 | 20.2 | 192 | .. 1896-1900 |
| 1901-1905 | 554,355 | 17.4 | 30.9 | 20.1 | 0.01 | 0.55 | 0.19 | 0.22 | 0.41 | 0.00 | 0.13 | 0.00 | 1.15 | 0.72 | 7.1 | 24.4 | 173 | .. 1901-1905 |
| 1906-1910 | 660,049 | 17.0 | 28.1 | 17.7 | .. | 0.54 | 0.16 | 0.17 | 0.37 | 0.00 | 0.10 | 0.00 | 0.76 | 0.68 | 7.4 | 27.3 | 147 | .. 1906-1910 |
| 1911-1915 | 720,565 | 17.9 | 25.3 | 16.5 | .. | 0.51 | 0.12 | 0.14 | 0.26 | .. | 0.06 | .. | 0.83 | 0.66 | 7.4 | 29.2 | 133 | .. 1911-1915 |
| 1916-1920 | B 746,909 D 699,325 | 18.4 | 19.9 | 15.7 | .. | 0.28 | 0.04 | 0.08 | 0.24 | .. | 0.02 | 0.00 | 0.33 | 0.55 | 6.3 | 29.7 | 105 | .. 1916-1920 |
| 1921-1925 | 751,080 | 16.8 | 20.6 | 13.9 | .. | 0.25 | 0.07 | 0.10 | 0.21 | .. | 0.01 | .. | 0.31 | 0.45 | 5.7 | 37.4 | 96 | .. 1921-1925 |
| 1926-1930 | 752,840 | 16.6 | 17.5 | 13.9 | .. | 0.18 | 0.02 | 0.11 | 0.14 | .. | 0.01 | .. | 0.29 | 0.50 | 4.8 | 42.8 | 88 | .. 1926-1930 |
| 1931-1935 | 759,180 | 17.1 | 15.3 | 13.4 | .. | 0.11 | 0.02 | 0.10 | 0.08 | .. | 0.00 | .. | 0.15 | 0.54 | 4.8 | 48.3 | 77 | .. 1931-1935 |
| 1936-1940 | 712,660 | 21.4 | 15.2 | 14.3 | .. | 0.07 | 0.00 | 0.09 | 0.04 | .. | 0.00 | .. | 0.10 | 0.70 | 4.9 | 52.0 | 71 | .. 1936-1940 |
| 1941-1945 | 608,256 | 20.9 | 18.1 | 15.0 | .. | 0.02 | 0.00 | 0.04 | 0.06 | .. | 0.00 | .. | 0.15 | 0.68 | 5.1 | 50.7 | 64 | .. 1941-1945 |
| 1946-1950 | 690,264 | 20.2 | 20.1 | 13.1 | .. | 0.01 | .. | 0.00 | 0.04 | .. | 0.00 | .. | 0.16 | 0.40 | 3.6 | 45.3 | 48 | .. 1946-1950 |
| 1947 | 685,560 | 22.2 | 23.1 | 13.8 | .. | 0.03 | .. | 0.00 | 0.03 | .. | 0.00 | .. | 0.33 | 0.42 | 3.6 | 46.7 | 60 | .. 1947 |
| 1948 | 693,000 | 21.8 | 19.9 | 12.3 | .. | 0.02 | .. | 0.00 | 0.03 | .. | 0.00 | .. | 0.08 | 0.40 | 3.8 | 47.7 | 42 | .. 1948 |
| 1949 | 699,600 | 20.5 | 18.8 | 12.9 | .. | 0.01 | .. | 0.00 | 0.04 | .. | 0.00 | .. | 0.09 | 0.36 | 3.2 | 43.6 | 38 | .. 1949 |
| 1950 | 704,500 | 19.0 | 17.7 | 12.8 | .. | 0.01 | .. | 0.00 | 0.03 | .. | 0.00 | .. | 0.05 | 0.39 | 3.4 | 42.2 | 38 | .. 1950 |
| 1951 | 699,900 | 19.0 | 17.8 | 13.8 | .. | 0.00 | .. | .. | 0.00 | .. | .. | .. | 0.04 | 0.43 | 3.6 | 40.7 | 35 | .. 1951 |

Quinquennial Average

The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken as approximately representing "Manchester." The City was extended to include Moss Side and Withington in November, 1904, Gorton and Levenshulme in November, 1909, and Wythenshawe April, 1931.

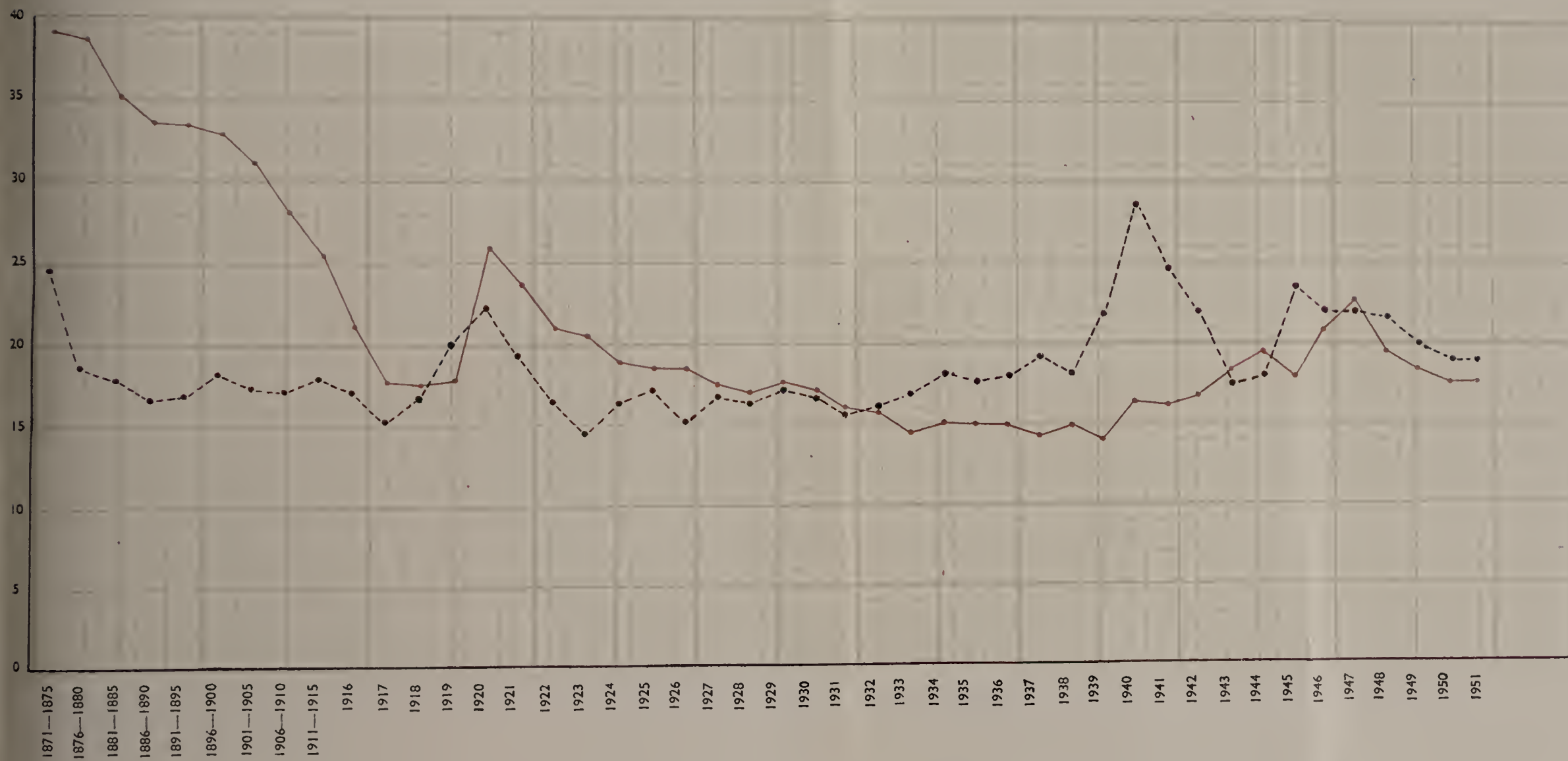
CITY OF MANCHESTER

ANNUAL BIRTH AND MARRIAGE RATES PER 1000 PERSONS LIVING

1871-1951

BIRTH RATES

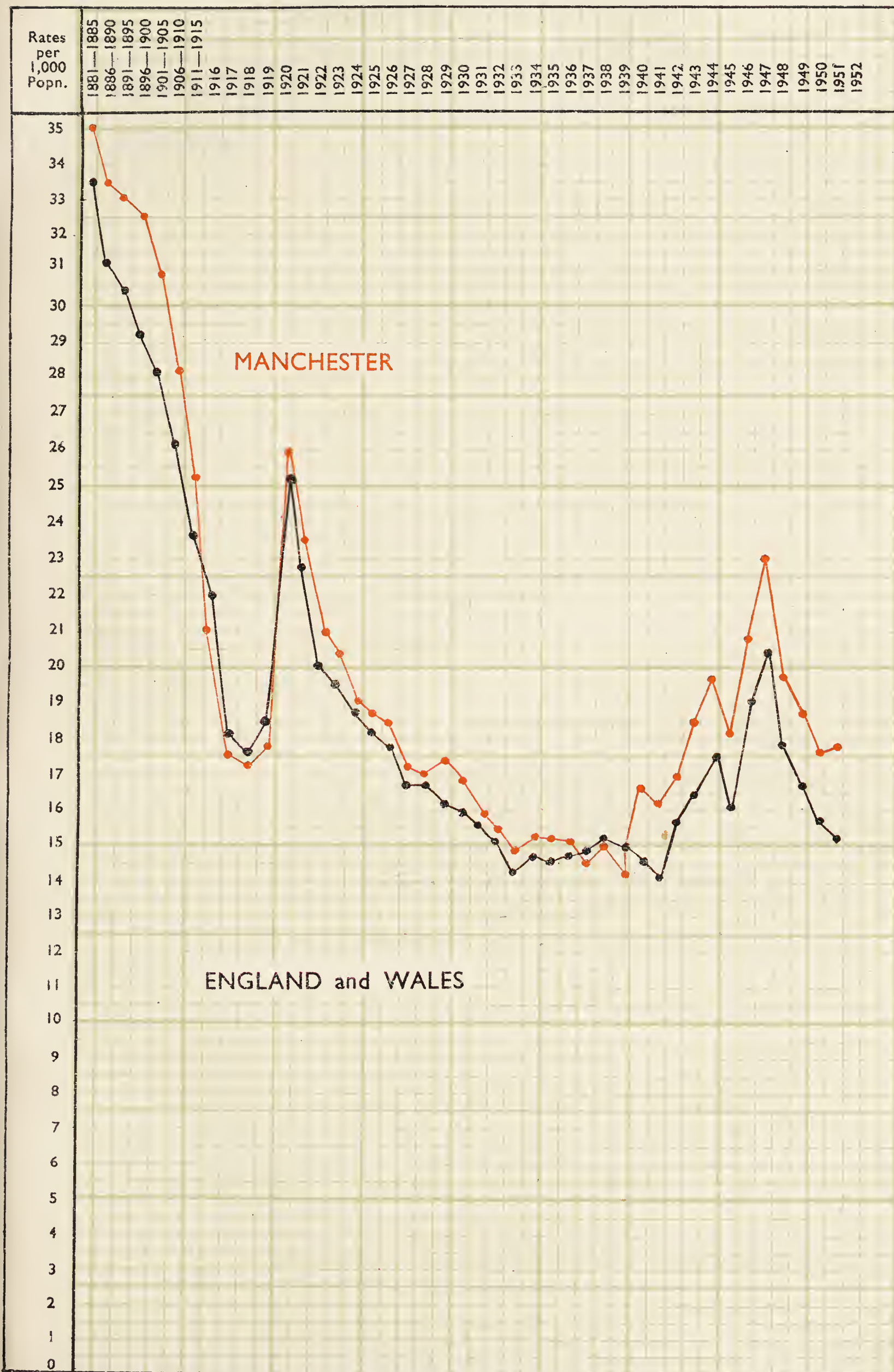
MARRIAGE RATES



Manchester—Estimated Populations. Annual Rates of Marriages. Births. and Deaths (a) from All Canoe (b) from

BIRTH RATE 1881—1951

Per 1000 of the Population



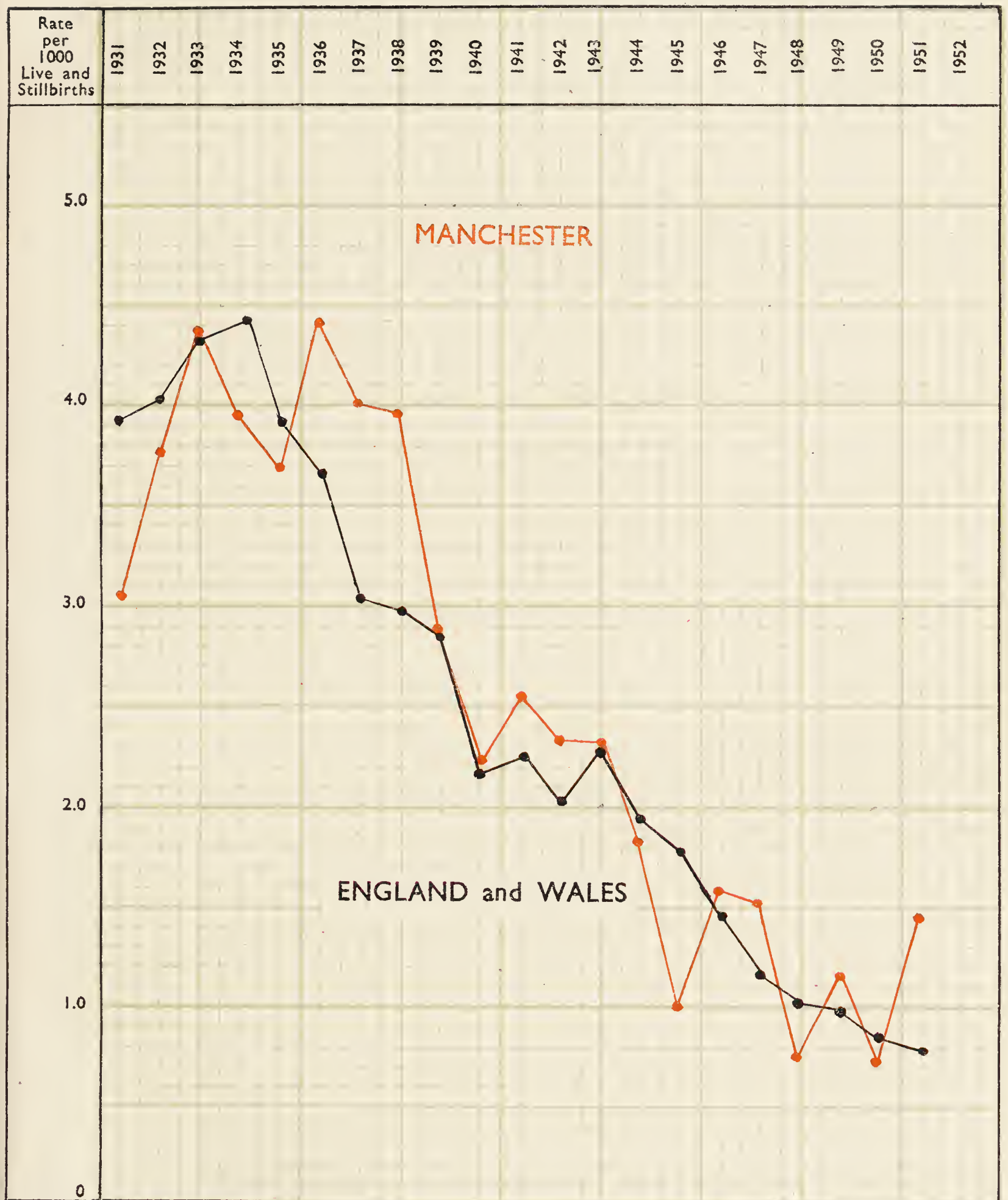
DEATH RATE 1871-1951

PER 1000 OF THE POPULATION



MATERNAL MORTALITY

Mortality per 1000 Live and Stillbirths



Manchester—Annual Rates of Mortality from certain causes of Death.

| YEAR | | ANNUAL RATES PER 1,000 PERSONS LIVING | | | | | | | | | RATES PER 1,000 BIRTHS* | |
|------------|----|---------------------------------------|--|-----------------------------------|----------------------------------|--|--------------------------------------|------------------------------------|-------------------------------|-------------------------------------|--|------------------------------|
| | | Malignant Neoplasms | Tuberculosis of Respiratory System | Other Forms of Tuberculosis | Diseases of Nervous System | Diseases of Heart and Circulatory System | Diseases of Respiratory System | Diseases of Digestive System | Nephritis and Nephrosis | Diseases of Generative System | Puerperal and Post Abortive Sepsis | Other Puerperal Causes |
| 1881-1885 | .. | 0.50 | 2.42 | 0.92 | 3.28 | 1.37 | 5.41 | 1.23 | .. | 0.08 | 3.03 | 1.99 |
| 1886-1890 | .. | 0.64 | 2.24 | 0.95 | 3.09 | 1.73 | 5.76 | 1.23 | .. | 0.08 | 3.22 | 2.13 |
| 1891-1895 | .. | 0.62 | 2.09 | 0.97 | 1.74 | 2.53 | 5.56 | 1.07 | .. | 0.07 | 2.75 | 3.42 |
| 1896-1900 | .. | 0.73 | 2.04 | 0.82 | 1.32 | 2.54 | 5.03 | 1.04 | .. | 0.09 | 1.55 | 1.51 |
| 1901-1905 | .. | 0.80 | 1.91 | 0.71 | 1.17 | 1.74 | 4.24 | 1.87 | 0.41 | 0.08 | 1.21 | 1.76 |
| 1906-1910 | .. | 0.88 | 1.66 | 0.59 | 0.95 | 1.72 | 3.77 | 1.42 | 0.44 | 0.07 | 1.28 | 1.49 |
| 1911-1915 | .. | 1.04 | 1.67 | 0.47 | 0.79 | 1.24 | 3.62 | 1.44 | 0.46 | 0.09 | 1.42 | 2.56 |
| 1916-1920 | .. | 1.21 | 1.61 | 0.41 | 0.54 | 1.21 | 3.41 | 0.84 | 0.41 | 0.06 | 1.70 | 2.14 |
| 1921-1925 | .. | 1.36 | 1.27 | 0.30 | 0.51 | 1.39 | 3.11 | 0.74 | 0.34 | 0.07 | 1.83 | 2.10 |
| 1926-1930 | .. | 1.50 | 1.19 | 0.21 | 0.48 | 1.81 | 2.65 | 0.75 | 0.36 | 0.07 | 2.14 | 2.63 |
| 1931-1935 | .. | 1.67 | 1.02 | 0.16 | 0.41 | 2.50 | 1.97 | 0.55 | 0.37 | 0.05 | * 1.59 | * 2.20 |
| 1936-1940 | .. | 1.81 | 0.93 | 0.14 | 0.38 | 3.10 | 2.07 | 0.53 | 0.37 | 0.06 | 1.11 | 2.40 |
| 1941-1945 | .. | 2.10 | 0.93 | 0.14 | † 1.62 | 3.10 | 2.39 | 0.65 | 0.37 | 0.03 | 0.71 | 1.30 |
| 1946-1950 | .. | 1.99 | 0.64 | 0.08 | 1.53 | 3.20 | 1.99 | 0.57 | 0.26 | 0.04 | 0.30 | 0.88 |
| 1947 | | 2.05 | 0.66 | 0.09 | 1.59 | 3.13 | 2.11 | 0.77 | 0.33 | 0.07 | 0.55 | 0.99 |
| 1948 | | 2.00 | 0.69 | 0.07 | 1.47 | 2.77 | 1.80 | 0.50 | 0.28 | 0.02 | 0.07 | 0.71 |
| 1949 | | 2.00 | 0.60 | 0.05 | 1.60 | 3.15 | 2.10 | 0.47 | 0.24 | 0.02 | 0.45 | 0.74 |
| 1950 | | 1.99 | 0.58 | 0.07 | 1.58 | 4.15 | 1.86 | 0.45 | 0.13 | 0.08 | 0.08 | 0.70 |
| 1951 | | 2.10 | 0.45 | 0.06 | 1.78 | 4.44 | 2.53 | 0.44 | 0.12 | 0.09 | 0.39 | 1.10 |

* Maternal Mortality rates until 1930 were based on per 1,000 Live Births. From 1931 onwards these rates were calculated on per 1,000 Live and Stillbirths.

† Diseases of Nervous System includes Cerebral Hæmorrhage from 1941. From 1911 rates are based on Registrar General's Returns.

Manchester, 1951—Causes of Death in Infancy and Childhood.

(Figures compiled by Medical Officer of Health for 52 weeks)

| CAUSE OF DEATH | Under 1 Year | | | | | 1 to 5 Years | | | | | Total under 5 Years |
|---|---------------|---------------------|------------|-------------|-------|--------------|-----------|-----------|-----------|-------|---------------------|
| | Under 4 Weeks | 4 Weeks to 3 Months | 3—6 Months | 6—12 Months | Total | 1—2 Years | 2—3 Years | 3—4 Years | 4—5 Years | Total | |
| | | | | | | | | | | | |
| All Causes | 251 | 77 | 54 | 57 | 439 | 38 | 12 | 8 | 5 | 63 | 502 |
| Tuberculosis (Respiratory) | — | — | 1 | 1 | 2 | 1 | — | — | — | 1 | 3 |
| Tubercular Meningitis | — | — | 1 | 1 | 2 | 1 | — | — | — | 6 | 8 |
| Tubercular Peritonitis and Tabes Mesenterica | — | — | — | — | — | — | — | — | — | — | — |
| Tuberculosis (Other) | — | — | — | — | — | — | — | — | — | — | — |
| Syphilitic Disorders | — | — | — | — | — | — | — | — | — | — | — |
| Diphtheria | — | — | — | — | — | — | — | — | — | — | — |
| Scarlet Fever | — | — | 1 | 1 | 2 | — | — | — | — | — | — |
| Whooping Cough | — | — | — | — | — | — | — | — | — | — | — |
| Measles | — | — | — | 1 | 1 | — | — | — | — | — | 2 |
| Acute Poliomyelitis | — | — | — | 1 | 1 | — | — | — | — | — | 1 |
| Meningococcal Infection | — | — | 1 | — | 1 | 1 | — | 1 | — | 2 | 1 |
| Acute Inf. Encephalitis | — | — | — | — | — | — | 1 | — | — | 1 | 1 |
| Dysentery | — | — | — | — | — | — | — | — | — | — | — |
| Other Food Poisoning | — | — | — | — | — | — | — | — | — | — | — |
| Rickets | — | — | — | — | — | — | — | — | — | — | — |
| Meningitis (not T.B.) | 2 | 1 | — | 4 | 7 | 1 | — | — | 1 | 2 | 7 |
| Other Nervous Disorders | 1 | — | 1 | 1 | 3 | 1 | — | — | — | 1 | 4 |
| Influenza | — | — | — | 13 | 47 | 9 | — | — | — | 9 | 56 |
| Broncho Pneumonia (4 weeks +) | — | — | 21 | 1 | 3 | 3 | — | — | — | 4 | 7 |
| Lobar | — | — | — | 1 | 3 | — | — | — | — | — | — |
| Other | — | — | 1 | 1 | 6 | 3 | — | — | — | — | 6 |
| Bronchitis | 2 | 6 | 2 | 6 | 16 | 3 | — | — | — | 3 | 19 |
| Other Respiratory | 1 | 1 | 1 | — | 3 | — | — | — | — | — | 3 |
| Diarrhoea (4 weeks to 2 years) | — | 15 | 7 | 8 | 30 | — | — | — | — | — | 30 |
| Gastritis | — | — | — | — | — | — | — | — | — | — | — |
| Other Digestive | 1 | 3 | — | — | 4 | 2 | 1 | 1 | — | 4 | 8 |
| Congenital Defects | 29 | 16 | 4 | 7 | 56 | 6 | — | — | — | 6 | 62 |
| Birth Injury with immaturity | 15 | — | — | — | 15 | — | — | — | — | — | 15 |
| " without | 2 | — | — | — | 2 | — | — | — | — | — | 22 |
| " with | 42 | — | — | — | 42 | — | — | — | — | — | 42 |
| Atelectasis | 33 | 1 | — | — | 34 | — | — | — | — | — | 34 |
| " without | — | — | — | — | — | — | — | — | — | — | — |
| " with | — | — | — | — | — | — | — | — | — | — | — |
| Pneumonia with | 15 | — | — | — | 15 | — | — | — | — | — | 15 |
| Pneumonia without | — | — | — | — | — | — | — | — | — | — | — |
| Diarrhoea with | — | — | — | — | — | — | — | — | — | — | — |
| " without | — | — | — | — | — | — | — | — | — | — | — |
| Other Sepsis of Newborn with immaturity (— 4 weeks) | 3 | — | — | — | 3 | — | — | — | — | — | 3 |
| " without | 1 | — | — | — | 1 | — | — | — | — | — | 1 |
| Others of early Infancy with Immaturity | 3 | — | — | — | 3 | — | — | — | — | — | 3 |
| " with | 5 | — | — | — | 5 | — | — | — | — | — | 5 |
| Immaturity unqualified | 11 | 1 | 1 | 1 | 14 | — | — | — | — | — | 14 |
| Suffocation (overlain) | 59 | 2 | 4 | — | 60 | — | — | — | — | — | 60 |
| Other Violence | — | 3 | 3 | — | 5 | — | — | — | — | — | 5 |
| Other Causes | 3 | 2 | 5 | 7 | 17 | 3 | 2 | 2 | 2 | 14 | 29 |

INFANT MORTALITY.

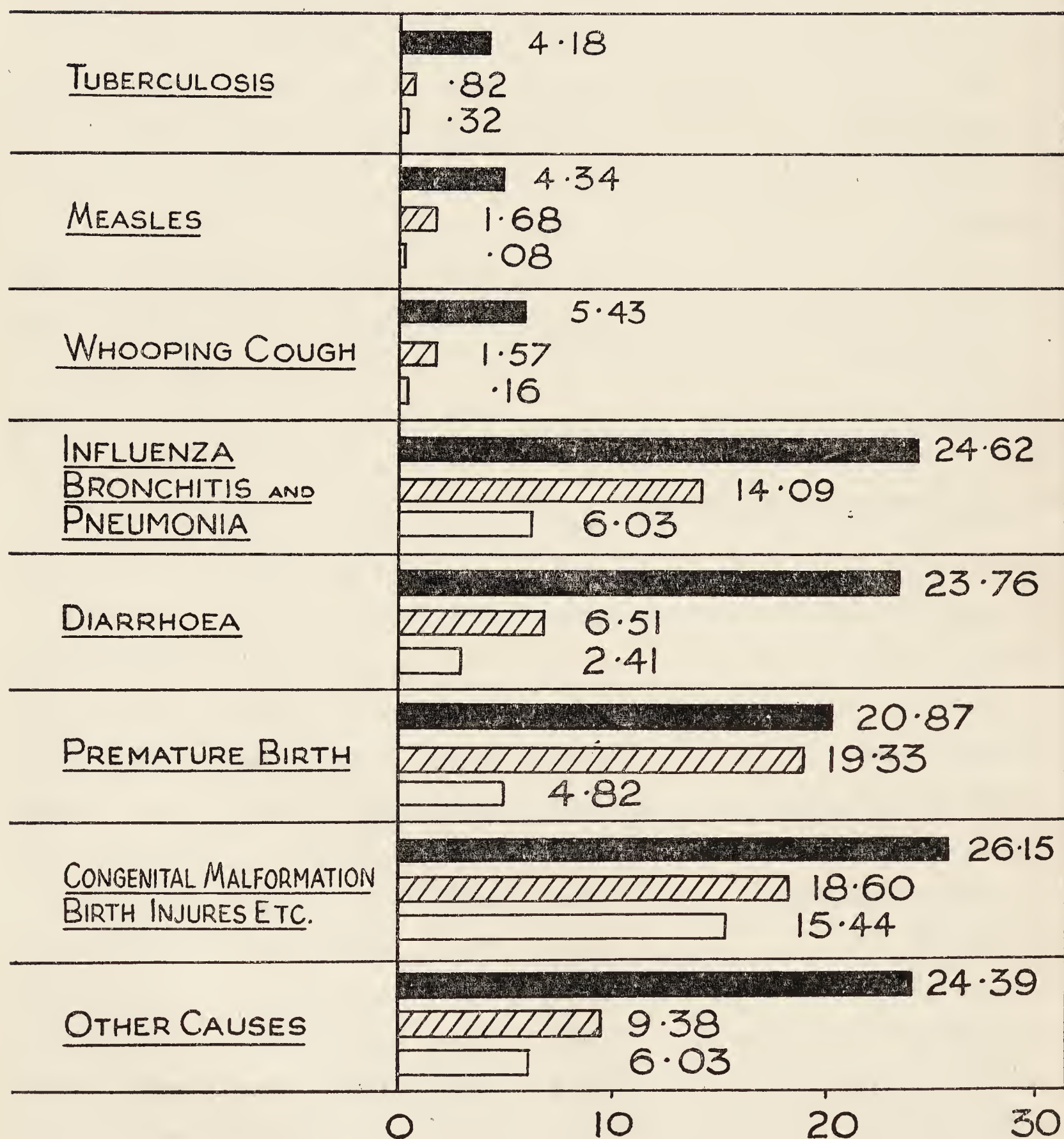
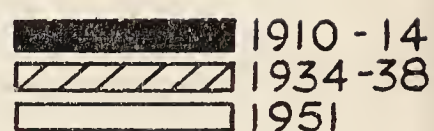
Deaths from Various Causes per 1,000 Live Births.

1946—51.

| Cause of Death | Rate per 1,000 Live Births | | | | | |
|--|----------------------------|-------|-------|-------|-------|-------|
| | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| All causes | 63·71 | 59·76 | 42·12 | 38·24 | 37·87 | 35·29 |
| Tuberculosis, Respiratory | 0·22 | 0·25 | 0·14 | 0·08 | 0·08 | 0·16 |
| do Other | 0·64 | 0·38 | 0·36 | 0·23 | 0·08 | 0·16 |
| Syphilitic Diseases | 0·43 | 0·19 | 0·14 | 0·08 | 0·08 | .. |
| Scarlet Fever | .. | .. | .. | .. | .. | .. |
| Diphtheria | .. | .. | .. | .. | .. | .. |
| Whooping Cough | 1·57 | 0·69 | 0·94 | 1·45 | 1·13 | 0·16 |
| Meningococcal Infections | 0·29 | 0·13 | 0·22 | 0·38 | 0·16 | 0·08 |
| Acute Poliomyelitis | .. | .. | .. | .. | .. | .. |
| Acute Infectious Encephalitis | .. | 0·06 | .. | .. | .. | .. |
| Measles | 0·14 | 0·69 | 0·22 | 0·08 | 0·40 | 0·08 |
| Vascular Lesions of Central Nervous System | 0·29 | 0·19 | 0·14 | 0·08 | .. | 0·08 |
| Influenza | 0·21 | 0·19 | 0·07 | 0·38 | .. | 0·24 |
| Pneumonia (+ 4 weeks) | 8·95 | 9·73 | 7·76 | 6·93 | 4·42 | 4·50 |
| Bronchitis | 1·58 | 1·01 | 0·58 | 0·91 | 1·13 | 1·29 |
| Other Respiratory Diseases | 0·57 | 0·44 | 0·36 | 0·23 | 0·16 | 0·24 |
| Diarrhoeal Diseases | 11·96 | 14·47 | 4·13 | 4·34 | 2·90 | 2·41 |
| Other Digestive Diseases | 0·57 | 0·69 | 0·65 | 0·31 | 0·80 | 0·32 |
| Nephritis and Nephrosis | 0·07 | 0·25 | .. | .. | 0·08 | 0·08 |
| Congenital Malformations | 7·95 | 5·94 | 5·58 | 4·57 | 5·07 | 4·50 |
| Birth Injuries | 3·29 | 2·15 | 2·68 | 3·35 | 2·65 | 2·98 |
| Premature Birth | 13·74 | 11·62 | 7·54 | 5·33 | 6·51 | 4·82 |
| Other Diseases of Early Infancy | 6·51 | 6·70 | 5·36 | 5·64 | 8·76 | 7·96 |
| Violence | 1·79 | 1·83 | 1·09 | 0·84 | 0·96 | 1·61 |
| All other causes | 2·94 | 2·16 | 4·16 | 3·03 | 2·50 | 3·62 |

CITY OF MANCHESTER

INFANT MORTALITY



Deaths under One Year of Age from Premature Birth, Diarrhoea, and Other Causes, 1939-1951.
Manchester—(From Registrar-General's Returns).

| Year | Premature Birth | | Diarrhoea | | Other Causes | | Total Deaths | Infant Mortality Rate per 1,000 Live Births |
|---------|-----------------|----------------------------------|-----------|----------------------------------|--------------|----------------------------------|--------------|---|
| | Deaths | Rate per 1,000 Live Births | Deaths | Rate per 1,000 Live Births | Deaths | Rate per 1,000 Live Births | | |
| 1939 .. | 161 | 15.5 | 60 | 5.8 | 413 | 39.8 | 634 | 61.1 |
| 1940 .. | 146 | 14.0 | 70 | 6.7 | 513 | 49.4 | 729 | 70.2 |
| 1941 .. | 176 | 17.9 | 109 | 11.0 | 547 | 55.5 | 832 | 84.5 |
| 1942 .. | 187 | 18.2 | 88 | 8.6 | 388 | 37.8 | 663 | 64.5 |
| 1943 .. | 167 | 14.9 | 85 | 7.6 | 429 | 38.4 | 681 | 60.8 |
| 1944 .. | 164 | 13.4 | 72 | 5.9 | 418 | 34.3 | 654 | 53.6 |
| 1945 .. | 129 | 11.4 | 83 | 7.3 | 422 | 37.1 | 634 | 55.8 |
| 1946 .. | 192 | 13.7 | 167 | 12.0 | 531 | 38.0 | 890 | 63.7 |
| 1947 .. | 181 | 11.4 | 223 | 14.1 | 542 | 34.3 | 946 | 59.8 |
| 1948 .. | 104 | 7.5 | 57 | 4.1 | 420 | 30.5 | 581 | 42.1 |
| 1949 .. | 70 | 5.3 | 57 | 4.3 | 375 | 28.6 | 502 | 38.2 |
| 1950 .. | 81 | 6.5 | 38 | 3.0 | 352 | 28.4 | 471 | 37.9 |
| 1951 .. | 60 | 4.8 | 30 | 2.4 | 349 | 28.1 | 439 | 35.3 |

Total Legitimate and Illegitimate Live Births in England and Wales and Manchester, with Illegitimate Percentages.
From Registrar-General's Return.

| YEAR | LIVE BIRTHS, ENGLAND AND WALES | | | | LIVE BIRTHS, MANCHESTER | | | |
|---------|--------------------------------|------------|--------------|---|-------------------------|------------|--------------|---|
| | Total | Legitimate | Illegitimate | Illegitimate % of total live births | Total | Legitimate | Illegitimate | Illegitimate % of total live births |
| 1914 .. | 879,096 | 841,767 | 37,329 | 4.25 | 18,779 | 17,972 | 807 | 4.30 |
| 1915 .. | 814,614 | 778,369 | 36,245 | 4.45 | 16,696 | 15,956 | 740 | 4.43 |
| 1916 .. | 785,520 | 747,831 | 37,689 | 4.80 | 15,597 | 14,901 | 696 | 4.46 |
| 1917 .. | 668,346 | 631,189 | 37,157 | 5.56 | 12,937 | 12,195 | 742 | 5.74 |
| 1918 .. | 662,773 | 621,620 | 41,153 | 6.21 | 12,926 | 12,053 | 873 | 6.75 |
| 1919 .. | 692,438 | 650,562 | 41,876 | 6.05 | 13,686 | 12,758 | 928 | 6.78 |
| 1920 .. | 957,994 | 913,727 | 44,267 | 4.62 | 19,213 | 18,253 | 960 | 4.99 |
| 1921 .. | 848,814 | 810,196 | 38,618 | 4.52 | 17,549 | 16,647 | 902 | 5.14 |
| 1922 .. | 780,124 | 745,986 | 34,138 | 4.38 | 15,787 | 15,013 | 774 | 4.90 |
| 1923 .. | 758,131 | 726,609 | 31,522 | 4.16 | 15,388 | 14,677 | 711 | 4.62 |
| 1924 .. | 729,933 | 699,637 | 30,296 | 4.15 | 14,483 | 13,826 | 657 | 4.54 |
| 1925 .. | 710,582 | 681,686 | 28,896 | 4.07 | 14,162 | 13,493 | 669 | 4.72 |
| 1926 .. | 694,563 | 664,972 | 29,591 | 4.26 | 13,969 | 13,290 | 679 | 4.86 |
| 1927 .. | 654,172 | 625,149 | 29,023 | 4.35 | 13,036 | 12,388 | 648 | 4.97 |
| 1928 .. | 660,267 | 630,565 | 29,702 | 4.50 | 12,902 | 12,256 | 646 | 5.01 |
| 1929 .. | 643,673 | 614,366 | 29,307 | 4.55 | 13,058 | 12,380 | 678 | 5.19 |
| 1930 .. | 648,811 | 619,129 | 29,682 | 4.57 | 12,851 | 12,178 | 673 | 5.24 |
| 1931 .. | 632,081 | 603,995 | 28,086 | 4.44 | 12,337 | 11,694 | 643 | 5.21 |
| 1932 .. | 613,972 | 586,961 | 27,011 | 4.39 | 11,825 | 11,206 | 619 | 5.24 |
| 1933 .. | 580,413 | 555,005 | 25,408 | 4.37 | 11,156 | 10,582 | 574 | 5.15 |
| 1934 .. | 597,642 | 571,857 | 25,785 | 4.31 | 11,555 | 10,974 | 581 | 5.03 |
| 1935 .. | 598,756 | 573,651 | 25,105 | 4.19 | 11,379 | 10,842 | 537 | 4.72 |
| 1936 .. | 605,292 | 580,397 | 24,895 | 4.11 | 11,231 | 10,681 | 550 | 4.90 |
| 1937 .. | 610,557 | 585,216 | 25,341 | 4.15 | 10,786 | 10,268 | 518 | 4.80 |
| 1938 .. | 621,204 | 594,825 | 26,379 | 4.25 | 11,025 | 10,468 | 557 | 5.05 |
| 1939 .. | 619,352 | 593,410 | 25,942 | 4.19 | 10,378 | 9,807 | 571 | 5.50 |
| 1940 .. | 607,029 | 581,156 | 25,873 | 4.26 | 10,388 | 9,873 | 515 | 4.96 |
| 1941 .. | 579,091 | 548,033 | 31,058 | 5.36 | 9,849 | 9,239 | 610 | 6.19 |
| 1942 .. | 651,503 | 615,036 | 36,467 | 6.00 | 10,276 | 9,680 | 596 | 5.80 |
| 1943 .. | 684,334 | 640,625 | 43,709 | 6.38 | 11,185 | 10,431 | 754 | 6.74 |
| 1944 .. | 751,478 | 696,305 | 55,173 | 7.34 | 12,204 | 11,239 | 965 | 7.91 |
| 1945 .. | 679,937 | 616,517 | 63,420 | 9.33 | 11,362 | 10,175 | 1,187 | 10.45 |
| 1946 .. | 820,719 | 766,800 | 53,919 | 6.57 | 13,969 | 12,874 | 1,095 | 7.84 |
| 1947 .. | 881,026 | 834,423 | 46,603 | 5.29 | 15,830 | 14,760 | 1,070 | 6.76 |
| 1948 .. | 775,306 | 733,732 | 41,574 | 5.41 | 13,794 | 12,886 | 908 | 6.58 |
| 1949 .. | 730,518 | 693,611 | 36,907 | 5.34 | 13,129 | 12,243 | 886 | 6.75 |
| 1950 .. | 692,457 | 658,310 | 34,147 | 4.93 | 12,436 | 11,523 | 913 | 7.34 |
| 1951 .. | 679,497 | 647,561 | 31,936 | 4.70 | 12,438 | 11,616 | 822 | 6.58 |

Deaths of Infants under One Year of Age.
Manchester, 1914 to 1951.
From Registrar-General's Return.

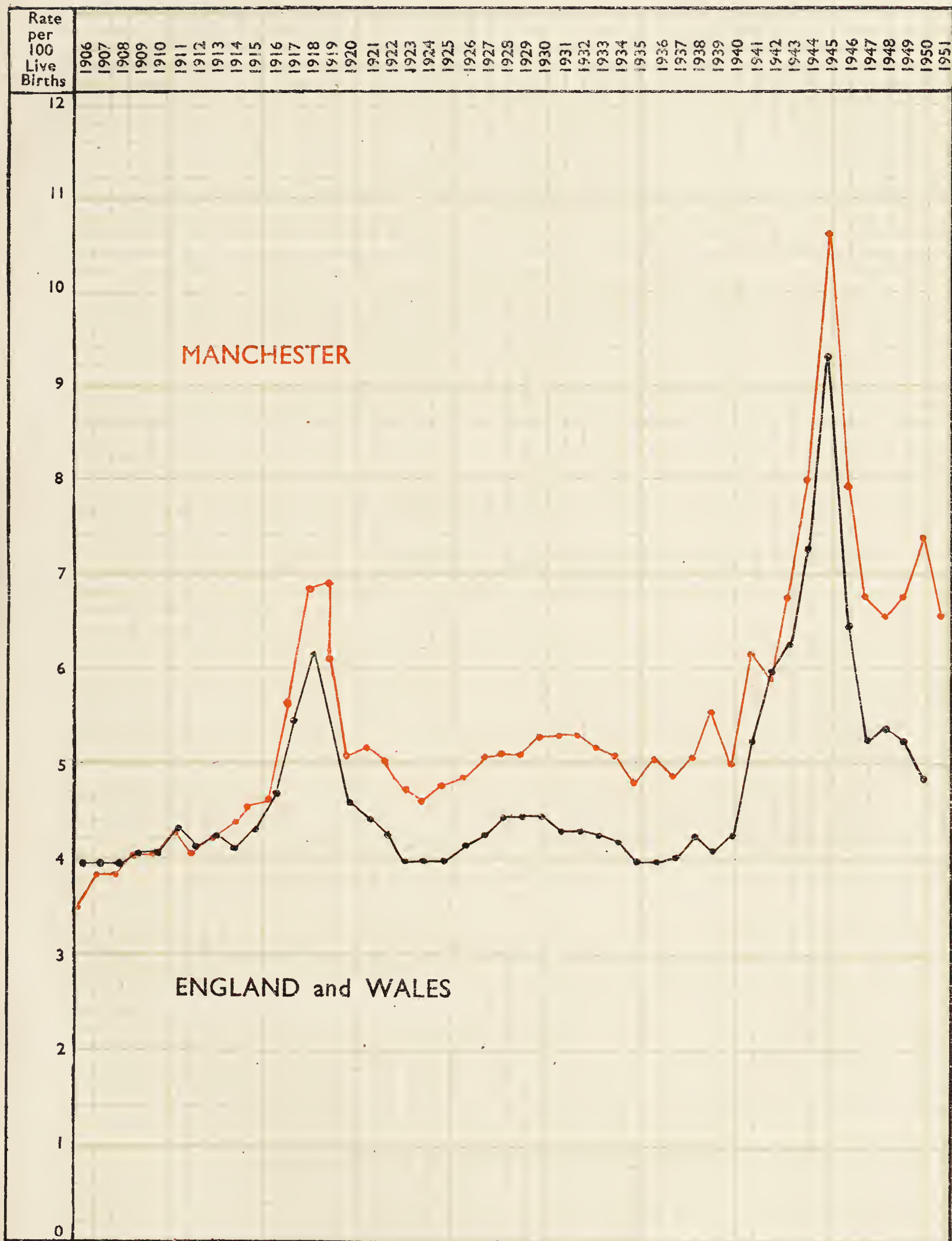
| Year | Total live births | Total deaths under one year | Deaths per 1,000 of the total live births | Legitimate births | Legitimate deaths | Deaths per 1,000 legitimately born | Illegitimate births | Illegitimate deaths | Deaths per 1,000 illegitimately born |
|------|----------------------|--------------------------------------|--|----------------------|----------------------|---|------------------------|------------------------|---|
| 1914 | 18,779 | 2,423 | 129.03 | 17,972 | 2,218 | 123.41 | 807 | 205 | 254.03 |
| 1915 | 16,696 | 2,141 | 128.24 | 15,956 | 1,959 | 122.78 | 740 | 182 | 245.95 |
| 1916 | 15,597 | 1,737 | 111.37 | 14,901 | 1,578 | 105.90 | 696 | 159 | 228.45 |
| 1917 | 12,937 | 1,438 | 111.15 | 12,196 | 1,262 | 103.48 | 742 | 176 | 237.20 |
| 1918 | 12,926 | 1,381 | 106.83 | 12,053 | 1,201 | 100.00 | 873 | 180 | 206.19 |
| 1919 | 13,686 | 1,333 | 97.40 | 12,758 | 1,173 | 91.94 | 928 | 160 | 172.41 |
| 1920 | 19,213 | 1,882 | 97.95 | 18,253 | 1,169 | 64.04 | 960 | 213 | 221.88 |
| 1921 | 17,549 | 1,713 | 97.61 | 16,647 | 1,542 | 92.63 | 902 | 171 | 189.58 |
| 1922 | 15,787 | 1,525 | 96.60 | 15,013 | 1,375 | 91.59 | 774 | 150 | 193.80 |
| 1923 | 15,388 | 1,360 | 88.35 | 14,677 | 1,243 | 84.69 | 711 | 117 | 164.56 |
| 1924 | 14,483 | 1,454 | 100.39 | 13,826 | 1,316 | 95.18 | 657 | 138 | 210.05 |
| 1925 | 14,162 | 1,364 | 96.31 | 13,493 | 1,251 | 92.72 | 669 | 113 | 168.91 |
| 1926 | 13,969 | 1,216 | 87.05 | 13,290 | 1,116 | 83.97 | 679 | 100 | 147.28 |
| 1927 | 13,036 | 1,122 | 86.07 | 12,388 | 1,032 | 83.31 | 648 | 90 | 138.89 |
| 1928 | 12,902 | 1,179 | 91.38 | 12,256 | 1,084 | 88.44 | 646 | 95 | 147.06 |
| 1929 | 13,058 | 1,272 | 97.41 | 12,380 | 1,144 | 92.41 | 678 | 128 | 188.79 |
| 1930 | 12,851 | 995 | 77.43 | 12,178 | 881 | 72.34 | 673 | 114 | 169.39 |
| 1931 | 12,337 | 1,049 | 85.03 | 11,694 | 956 | 81.75 | 643 | 93 | 144.64 |
| 1932 | 11,825 | 1,015 | 85.83 | 11,206 | 934 | 83.35 | 619 | 81 | 130.86 |
| 1933 | 11,156 | 834 | 74.76 | 10,582 | 769 | 72.67 | 574 | 65 | 113.24 |
| 1934 | 11,155 | 798 | 69.06 | 10,974 | 742 | 67.61 | 581 | 56 | 96.39 |
| 1935 | 11,379 | 809 | 71.09 | 10,842 | 757 | 69.82 | 537 | 52 | 96.83 |
| 1936 | 11,231 | 863 | 76.84 | 10,681 | 816 | 76.40 | 550 | 47 | 85.45 |
| 1937 | 10,786 | 823 | 76.30 | 10,268 | 770 | 74.99 | 518 | 53 | 102.32 |
| 1938 | 11,025 | 761 | 69.03 | 10,468 | 702 | 67.06 | 557 | 59 | 105.92 |
| 1939 | 10,378 | 634 | 61.09 | 9,807 | 587 | 59.85 | 571 | 47 | 82.31 |
| 1940 | 10,388 | 729 | 70.18 | 9,873 | 677 | 68.57 | 515 | 52 | 100.97 |
| 1941 | 9,849 | 832 | 84.47 | 9,239 | 767 | 83.02 | 610 | 65 | 106.56 |
| 1942 | 10,276 | 663 | 64.52 | 9,680 | 621 | 64.15 | 596 | 42 | 70.47 |
| 1943 | 11,185 | 681 | 60.88 | 10,431 | 625 | 59.92 | 754 | 56 | 74.27 |
| 1944 | 12,204 | 654 | 53.59 | 11,239 | 577 | 51.34 | 965 | 77 | 79.79 |
| 1945 | 11,362 | 634 | 55.80 | 10,175 | 557 | 54.74 | 1,187 | 77 | 64.87 |
| 1946 | 13,969 | 890 | 63.71 | 12,874 | 798 | 61.98 | 1,095 | 92 | 84.02 |
| 1947 | 15,830 | 946 | 59.76 | 14,760 | 859 | 58.20 | 1,070 | 87 | 81.31 |
| 1948 | 13,794 | 581 | 42.12 | 12,886 | 524 | 40.66 | 908 | 57 | 62.77 |
| 1949 | 13,129 | 502 | 38.24 | 12,243 | 461 | 37.65 | 886 | 41 | 46.28 |
| 1950 | 12,436 | 471 | 37.87 | 11,523 | 433 | 37.58 | 913 | 38 | 41.62 |
| 1951 | 12,438 | 439 | 35.29 | 11,616 | 407 | 35.03 | 822 | 32 | 38.93 |

Manchester, 1951—Births in Wards Distinguishing Legitimate and Illegitimate Births ;
also the Proportion of Mortality among Infants of both Classes under One Year of Age.
(Figures Compiled by the Medical Officer of Health for 52 Weeks.)

| WARDS | | LIVE BIRTHS | | | | DEATHS UNDER 1 YEAR | | | | |
|--------------------|----|-------------|------------|--------------|-------------------------------------|---------------------|------------|--------------|---------------------------|--|
| | | Total | Legitimate | Illegitimate | % Illegitimate to Total Live Births | Total | Legitimate | Illegitimate | Rate per 1000 Live Births | Rate per 1000 Live Births Illegitimate |
| CITY OF MANCHESTER | | 12438 | 11616 | 822 | 6.58 | 439 | 407 | 32 | 35.29 | 38.93 |
| Alexandra Park | .. | 229 | 218 | 11 | 4.80 | 4 | 4 | — | 17.47 | — |
| All Saints.. | .. | 515 | 432 | 83 | 16.12 | 26 | 23 | 3 | 50.49 | 36.14 |
| Ardwick .. | .. | 456 | 418 | 38 | 8.33 | 16 | 14 | 2 | 35.09 | 52.63 |
| Barlow Moor | .. | 182 | 174 | 8 | 4.40 | 6 | 5 | 1 | 32.97 | 125.00 |
| Beswick .. | .. | 400 | 387 | 13 | 3.25 | 9 | 8 | 1 | 22.50 | 76.92 |
| Blackley .. | .. | 354 | 337 | 17 | 4.80 | 15 | 14 | 1 | 42.37 | 58.82 |
| Bradford .. | .. | 415 | 400 | 15 | 3.61 | 8 | 8 | — | 19.28 | — |
| Burnage .. | .. | 216 | 209 | 7 | 3.24 | 5 | 5 | — | 23.15 | — |
| Cheetham .. | .. | 235 | 217 | 18 | 7.66 | 11 | 10 | 1 | 46.81 | 55.55 |
| Chorlton-cum-Hardy | .. | 247 | 234 | 13 | 5.26 | 11 | 11 | — | 44.53 | — |
| Collegiate Church | .. | 285 | 258 | 27 | 9.47 | 9 | 8 | 1 | 3.51 | 37.03 |
| Crumpsall .. | .. | 313 | 306 | 7 | 2.24 | 14 | 13 | 1 | 44.73 | 142.86 |
| Didsbury .. | .. | 189 | 182 | 7 | 3.70 | 5 | 5 | — | 26.46 | — |
| Gorton North .. | .. | 325 | 303 | 22 | 6.77 | 8 | 8 | — | 24.62 | — |
| Gorton South .. | .. | 241 | 219 | 22 | 9.13 | 1 | 1 | — | 4.57 | — |
| Harpurhey .. | .. | 400 | 384 | 16 | 4.00 | 14 | 13 | 1 | 35.00 | 62.50 |
| Levenshulme .. | .. | 228 | 218 | 10 | 4.39 | 8 | 7 | 1 | 35.08 | 100.00 |
| Lightbowne .. | .. | 270 | 258 | 12 | 4.44 | 8 | 8 | — | 29.62 | — |
| Longsight .. | .. | 230 | 209 | 21 | 9.13 | 5 | 5 | — | 21.74 | — |
| Miles Platting .. | .. | 322 | 307 | 15 | 4.66 | 20 | 19 | 1 | 62.11 | 66.66 |
| Moss Side East | .. | 503 | 443 | 60 | 11.93 | 16 | 15 | 1 | 31.81 | 16.66 |
| Moss Side West | .. | 386 | 344 | 42 | 10.88 | 18 | 17 | 1 | 46.63 | 23.81 |
| Moston .. | .. | 341 | 332 | 9 | 2.64 | 12 | 12 | — | 35.19 | — |
| New Cross .. | .. | 403 | 371 | 32 | 7.94 | 15 | 14 | 1 | 37.22 | 31.25 |
| Newton Heath | .. | 333 | 321 | 12 | 3.61 | 12 | 10 | 2 | 36.03 | 166.66 |
| Newtown .. | .. | 587 | 545 | 42 | 7.15 | 25 | 24 | 1 | 42.54 | 23.80 |
| Northenden .. | .. | 258 | 250 | 8 | 3.10 | 10 | 9 | 1 | 38.76 | 125.00 |
| Old Moat .. | .. | 219 | 213 | 6 | 2.74 | 10 | 9 | 1 | 45.66 | 166.66 |
| Openshaw .. | .. | 345 | 328 | 17 | 4.93 | 16 | 14 | 2 | 46.38 | 117.65 |
| Rusholme .. | .. | 232 | 219 | 13 | 5.60 | 5 | 5 | — | 21.55 | — |
| St. George's | .. | 487 | 449 | 38 | 7.80 | 19 | 19 | — | 39.01 | — |
| St. Luke's | .. | 457 | 378 | 79 | 17.29 | 16 | 14 | 2 | 35.01 | 25.32 |
| St. Mark's | .. | 384 | 366 | 18 | 4.69 | 9 | 8 | 1 | 23.44 | 55.55 |
| St. Peter's | .. | 198 | 172 | 26 | 13.13 | 8 | 6 | 2 | 40.40 | 76.92 |
| Withington .. | .. | 162 | 155 | 7 | 4.32 | 7 | 7 | — | 43.21 | — |
| Wythenshawe .. | .. | 1091 | 1060 | 31 | 2.84 | 38 | 35 | 3 | 24.89 | — |

ILLEGITIMATE BIRTHS

Per 100 Live Births



(Live and Stillbirth), also Infant Death Rate per 1,000 Live Births.
Manchester.

| Year | Total live and stillbirths | STILLBIRTHS | | NEO-NATAL DEATHS | | DEATHS, 4 WEEKS— 1 YEAR | | DEATHS UNDER 1 YEAR AND STILLBIRTHS | | Infant death rate per 1,000 live births |
|---------|----------------------------------|-----------------------------|--|---|---|---|---|---|---|---|
| | | Number of stillbirths | Rate per 1,000 live and stillbirths | Number of neo-natal deaths, 0-4 weeks | Rate per 1,000 total live births | Number of deaths, 4 weeks— 1 year | Rate per 1,000 total live births | Number of deaths under 1 year and stillbirths | Rate per 1,000 total live and stillbirths | |
| 1933 .. | 11,738 | 582 | 49.58 | 385 | 34.51 | 449 | 40.25 | 1,416 | 120.63 | 74.76 |
| 1934 .. | 12,090 | 535 | 44.25 | 390 | 33.75 | 408 | 35.31 | 1,333 | 110.26 | 69.06 |
| 1935 .. | 11,925 | 546 | 45.79 | 381 | 33.48 | 428 | 37.61 | 1,355 | 113.63 | 71.09 |
| 1936 .. | 11,762 | 531 | 45.15 | 385 | 34.28 | 478 | 42.56 | 1,394 | 118.52 | 76.84 |
| 1937 .. | 11,254 | 468 | 41.59 | 381 | 35.32 | 442 | 40.98 | 1,291 | 114.71 | 76.30 |
| 1938 .. | 11,532 | 507 | 43.96 | 351 | 31.84 | 410 | 37.19 | 1,268 | 109.95 | 69.02 |
| 1939 .. | 10,870 | 492 | 45.26 | 321 | 30.93 | 313 | 30.16 | 1,126 | 103.59 | 61.09 |
| 1940 .. | 10,866 | 478 | 43.99 | 295 | 28.40 | 434 | 41.78 | 1,207 | 111.08 | 70.18 |
| 1941 .. | 10,249 | 400 | 39.03 | 292 | 29.65 | 540 | 54.82 | 1,232 | 120.21 | 84.47 |
| 1942 .. | 10,719 | 443 | 41.33 | 304 | 29.58 | 359 | 34.94 | 1,106 | 103.18 | 64.52 |
| 1943 .. | 11,591 | 406 | 35.02 | 306 | 27.36 | 375 | 33.52 | 1,087 | 93.77 | 60.88 |
| 1944 .. | 12,571 | 367 | 29.19 | 315 | 25.81 | 339 | 27.78 | 1,021 | 81.22 | 53.59 |
| 1945 .. | 11,734 | 372 | 31.70 | 311 | 27.37 | 323 | 28.43 | 1,006 | 85.73 | 55.80 |
| 1946 .. | 14,414 | 445 | 30.87 | 474 | 33.93 | 416 | 29.78 | 1,335 | 92.62 | 63.71 |
| 1947 .. | 16,257 | 427 | 26.27 | 466 | 29.44 | 485 | 30.32 | 1,380 | 84.89 | 59.76 |
| 1948 .. | 14,170 | 376 | 26.53 | 274 | 19.85 | 310 | 22.27 | 957 | 67.54 | 42.12 |
| 1949 .. | 13,460 | 331 | 24.59 | 241 | 18.43 | 261 | 19.81 | 833 | 61.88 | 38.24 |
| 1950 .. | 12,769 | 333 | 26.08 | 263 | 21.15 | 208 | 16.72 | 804 | 62.96 | 37.87 |
| 1951 .. | 12,757 | 319 | 25.01 | 251 | 20.18 | 188 | 15.11 | 758 | 59.42 | 35.29 |

INFECTIOUS DISEASES AND EPIDEMIOLOGY.

The deaths from the more common diseases are shown in the following figures :—

| | Years | |
|--------------------------------|--------------------|------|
| | 1946-50 Average | 1951 |
| | | |
| Measles | 11 • | 1 |
| Whooping Cough | 23 | 3 |
| Scarlet Fever | — | — |
| Diphtheria | 3 | — |
| Influenza | 65 | 257 |
| Pneumonia (all forms) | 386 | 412 |
| Enteric Fever | 1 | — |
| Diarrhoeal Disease | 102 | 60 |
| Pulmonary Tuberculosis | 443 | 318 |

Consultations.

17 consultation visits were made during the year by medical officers of the Department at the request of medical practitioners in the City in connection with the diagnosis of cases of infectious disease in which the nature of the illness was in doubt.

SMALLPOX.

No case of smallpox occurred in Manchester during the year.

VACCINATION.

In 1951 the number of children under 1 year of age successfully vaccinated was 4,803 which gives a percentage to the number of Live Births of 38·61.

The following table shows the number of children successfully vaccinated in the past 10 years with percentages.

| Year | Number of Persons Vaccinated | | | | | Number of Live Births | Percentage Vaccinated under 1 year to Live Births |
|---------|------------------------------|-----------|------------|-------------------|-------|-----------------------|---|
| | under 1 year | 1—4 years | 5—14 years | 15 years and over | Total | | |
| 1942 .. | 4,738 | | 178 | | 4,916 | 10,276 | 46·11 |
| 1943 .. | 5,162 | | 124 | | 5,286 | 11,185 | 46·15 |
| 1944 .. | 5,563 | | 172 | | 5,735 | 12,204 | 45·58 |
| 1945 .. | 5,345 | | 114 | | 5,459 | 11,362 | 47·04 |
| 1946 .. | 6,025 | | 362 | | 6,387 | 13,969 | 43·13 |
| 1947 .. | 7,648 | | 302 | | 7,950 | 15,830 | 48·31 |
| 1948 .. | 6,265 | | 173 | | 6,438 | 13,794 | 45·42 |
| 1949 .. | 2,627 | 2,031 | 70 | 383 | 5,111 | 13,129 | 20·01 |
| 1950 .. | 5,409 | 2,668 | 846 | 685 | 9,608 | 12,436 | 43·49 |
| 1951 .. | 4,803 | 587 | 311 | 1,937 | 7,638 | 12,438 | 38·61 |

1951—Scarlet Fever Cases in Wards, with Attack Rate, Case Mortality, and Removals to Hospital per cent.

| Wards | Cases | Attack Rate per 1,000 Living | Case Mortality per cent. | Removals to Hospital per cent. |
|-------------------------|------------|--|-----------------------------------|--|
| City | 970 | 1·39 | — | 27·2 |
| Alexandra Park | 13 | 0·60 | — | 15·4 |
| All Saints' | 11 | 0·57 | — | 54·5 |
| Ardwick | 26 | 1·41 | — | 38·5 |
| Barlow Moor | 12 | 0·78 | — | 41·7 |
| Beswick | 23 | 1·14 | — | 17·4 |
| Blackley | 38 | 1·85 | — | 18·4 |
| Bradford | 47 | 2·00 | — | 27·7 |
| Burnage | 18 | 0·79 | — | 11·1 |
| Cheetham.. .. | 15 | 1·02 | — | 13·3 |
| Chorlton-cum-Hardy .. | 18 | 0·87 | — | 38·9 |
| Collegiate Church | 10 | 0·70 | — | 50·0 |
| Crumpsall | 26 | 1·16 | — | 11·5 |
| Didsbury | 24 | 1·40 | — | 4·2 |
| Gorton North | 31 | 1·32 | — | 42·0 |
| Gorton South | 15 | 0·83 | — | 13·3 |
| Harpurhey | 65 | 3·40 | — | 49·2 |
| Levenshulme | 28 | 1·40 | — | 10·7 |
| Lightbowne | 49 | 2·35 | — | 38·8 |
| Longsight | 21 | 1·29 | — | 47·7 |
| Miles Platting | 22 | 1·43 | — | 22·7 |
| Moss Side East | 13 | 0·67 | — | 23·1 |
| Moss Side West | 8 | 0·42 | — | 25·0 |
| Moston | 36 | 1·74 | — | 16·7 |
| New Cross | 34 | 2·27 | — | 47·1 |
| Newton Heath | 47 | 2·38 | — | 17·0 |
| Newtown | 42 | 2·06 | — | 19·0 |
| Northenden | 30 | 1·60 | — | 20·0 |
| Old Moat | 25 | 1·45 | — | 20·0 |
| Openshaw | 25 | 1·07 | — | 24·0 |
| Rusholme.. .. | 24 | 1·37 | — | 37·5 |
| St. George's | 19 | 0·95 | — | 52·6 |
| St. Luke's | 15 | 0·80 | — | 40·0 |
| St. Mark's | 39 | 1·80 | — | 30·8 |
| St. Peters.. .. | 4 | 0·34 | — | — |
| Withington | 23 | 1·49 | — | 34·8 |
| Wythenshawe | 74 | 2·02 | — | 10·8 |

DIPHTHERIA.

The following figures show the number of cases notified and accepted as diphtheria each year for the last ten years :—

| 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
|------|------|------|------|------|------|------|------|------|------|
| 589 | 791 | 266 | 302 | 259 | 80 | 43 | 22 | 22 | 10 |

Mortality.

The case mortality in 1951 was Nil per cent., as compared with an average of 3·91 for the last five years.

TABLE 1.

Diphtheria.—Manchester Case Mortality Rates per cent. in Age Groups.

| | 0-5 years | 5-10 years | 10-15 years | 15 years and over |
|------------------------------|-----------|------------|-------------|-------------------|
| 1901-10 | 33·5 | 17·8 | 6·0 | 4·5 |
| 1942-51 | 3·9 | 3·5 | 1·8 | 1·5 |
| Percentage Reduction | 88 | 80 | 70 | 67 |

“ Carriers ” and the Virulence Test.

Of the total number of formal notifications received it was found on investigation that 5 related to persons who were merely “ carriers ” of diphtheria.

Swabs.

A total of 33 swabs were submitted to the Public Health Laboratory upon request by medical practitioners during the year and, of these, 3 or 9·1 per cent. proved positive. So far as was practicable, swabs were taken from the throats and noses of all members under 14 years of age of each family where there had occurred a case of diphtheria.

Supply of Anti-toxin.

Under the National Health Service Act the responsibility for the provision of diphtheria anti-toxin for use by general practitioners when required has been taken over by the Regional Hospital Board. Arrangements have now been made for supplies of anti-toxin to be available at certain hospitals and fire stations in the City.

TABLE II.

Diphtheria.—Number of Cases, of Deaths, and Case Mortality at Different Ages for the Fifty-Nine Years, 1891–1950 and for 1951.

| Ages | 1891–1950 | | | 1951 | | |
|--------------------|-----------|--------|----------------------------|-------|--------|----------------------------|
| | Cases | Deaths | * Case Mortality per cent. | Cases | Deaths | * Case Mortality per cent. |
| Under 1 year | 643 | 316 | 49·00 | — | — | — |
| 1 to 2 years | 1,613 | 638 | 40·00 | — | — | — |
| 2 to 3 „ | 2,450 | 652 | 26·61 | — | — | — |
| 3 to 4 „ | 3,185 | 660 | 20·72 | 1 | — | — |
| 4 to 5 „ | 3,597 | 593 | 16·49 | 1 | — | — |
| 5 to 6 „ | 3,904 | 518 | 13·27 | 1 | — | — |
| 6 to 7 „ | 3,364 | 349 | 10·37 | 3 | — | — |
| 7 to 8 „ | 2,692 | 250 | 9·29 | — | — | — |
| 8 to 9 „ | 2,230 | 198 | 8·88 | — | — | — |
| 9 to 10 „ | 1,683 | 141 | 8·38 | — | — | — |
| 10 to 15 „ | 5,259 | 204 | 3·88 | 3 | — | — |
| 15 to 20 „ | 2,108 | 59 | 2·80 | — | — | — |
| 20 to 25 „ | 1,258 | 28 | 2·23 | 1 | — | — |
| 25 to 35 „ | 1,406 | 29 | 2·06 | — | — | — |
| 35 to 45 „ | 568 | 11 | 1·94 | — | — | — |
| 45 and over | 295 | 26 | 8·81 | — | — | — |
| All ages | 36,255 | 4,672 | 12·89 | 10 | — | — |

* The percentages in this column are the actual proportions of fatal cases to true cases at those ages. “Carriers” are excluded.

The case mortality percentage at all ages since 1942 has been as follows :—

| 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
|------|------|------|------|------|------|------|------|------|------|
| 4·58 | 3·16 | 2·26 | 4·63 | 4·25 | 5·00 | 2·33 | NIL | 9·09 | Nil |

TABLE III.

Diphtheria, 1951—Cases and Deaths in Wards, with Attack Rate.

| Wards | Cases | Deaths | Attack Rate per 1,000 Living |
|---------------------------|-------|--------|---------------------------------------|
| City | 10 | — | 0·01 |
| Alexandra Park | — | — | — |
| All Saints' | 1 | — | 0·00 |
| Ardwick | — | — | — |
| Barlow Moor | — | — | — |
| Beswick | — | — | — |
| Blackley | — | — | — |
| Bradford | — | — | — |
| Burnage | — | — | — |
| Cheetham | — | — | — |
| Chorlton-cum-H. | — | — | — |
| Collegiate Church | 2 | — | 0·00 |
| Crumpsall | 1 | — | 0·00 |
| Didsbury | — | — | — |
| Gorton North | — | — | — |
| Gorton South | — | — | — |
| Harpurhey | — | — | — |
| Levenshulme | — | — | — |
| Lightbowne | — | — | — |
| Longsight | — | — | — |
| Miles Platting | — | — | — |
| Moss Side East | 1 | — | 0·00 |
| Moss Side West | 1 | — | 0·00 |
| Moston | — | — | — |
| New Cross | 1 | — | 0·00 |
| Newton Heath | — | — | — |
| Newtown | — | — | — |
| Northenden | — | — | — |
| Old Moat | 1 | — | 0·00 |
| Openshaw | — | — | — |
| Rusholme | — | — | — |
| St. George's | — | — | — |
| St. Luke's | 1 | — | 0·00 |
| St. Mark's | — | — | — |
| St. Peters | 1 | — | 0·00 |
| Withington | — | — | — |
| Wythenshawe | — | — | — |

Immunization against Diphtheria.

During the year 15,369 Manchester persons received a complete course of diphtheria prophylactic injections, 1,254 others received an incomplete course and 28,339 were given a reinforcing injection. In addition, 223 non-Manchester residents received a complete course, 17 an incomplete course and 694 a reinforcing injection. The numbers were distributed as follows :—

TABLE A.
Number of Manchester Persons Immunized and Number of
Immunizations carried out in Manchester during 1951.

| | Numbers having received complete course of prophylactic | Numbers having received incomplete course of prophylactic | Numbers having received reinforcing course of prophylactic |
|---|--|--|---|
| Schools and School Clinics .. | 6,159 | 988 | 26,727 |
| Child Welfare Centres | 4,354 | 166 | 712 |
| Day Nurseries | 291 | 7 | 109 |
| Hospitals | 42 | — | 19 |
| Health Office | 17 | — | 30 |
| Mobile Unit | 2,832 | 65 | 231 |
| General Practitioners | 1,638 | 28 | 451 |
| Manchester Persons Immunized by Outside Authorities .. | 36 | — | 60 |
| Persons from Outside Authori- ties Immunized in Manchester | 223 | 17 | 694 |
| Total Manchester Persons Immunized | 15,369 | 1,254 | 28,339 |
| Total Immunizations carried out in Manchester | 15,556 | 1,271 | 28,973 |

During the year the Mobile Unit continued to visit the areas of the City in which the percentage of immunized children under 5 years of age was low and areas situated at a distance from the Child Welfare Centres and Day Nurseries. This Unit was responsible for the complete immunization of 2,832 children, whereas 231 received a reinforcing injection and 65 an incomplete course of injections.

As from the 22nd May, 1950, at the request of the Medical Research Council, the City of Manchester Health Department, in conjunction with some other large authorities, continued to take part in the test of the new Diphtheria Prophylactic agent—P.T.A.P. (Purified Toxoid Alum Precipitate).

During the period 1st January to 27th June, 1951, the primary immunization dosage of P.T.A.P. for children of all ages was two injections of 0.5 cc. with a four weeks' interval between injections, and subsequently at the age of 5 and 10 years a " booster " or reinforcing dose of 0.5 cc. P.T.A.P. was given.

After examining the results of these inoculations since the trial of P.T.A.P. commenced, it came to light that a large number of local reactions were occurring, particularly in children of the older age groups who had received a "booster" or reinforcing injection.

It was therefore decided to revert to the use of T.A.F. for diphtheria immunization in children of the older age groups and with effect from 28th June, 1951, the following dosages were recommended :—

Primary Immunization.

Children 8 months—14 years .. 2 doses each of 0.5 cc. P.T.A.P. with 4 weeks interval between injections.
Children 15 years and over 3 doses each of 1 cc. T.A.F., with 4 weeks interval between injections.

"Booster" or Reinforcing Injection.

Children 8 months—7 years 1 dose of 0.5 cc. P.T.A.P.
Children 8 years and over 1 dose of 1 cc. T.A.F.

From the date of the changeover, T.A.F. was also supplied to general medical practitioners and hospitals in the City, in addition to P.T.A.P.

TABLE B.
Prophylactics Used in Immunizing Manchester Pre-School and School Children.

| Age Group | Number having received a complete course of injections | Prophylactic Used | | |
|--------------------------|--|-------------------|--------|--------|
| | | P.T.A.P. | A.P.T. | T.A.F. |
| Under 1 year | 3,281 | 3,247 | 30 | 4 |
| 1—4 years | 5,857 | 5,803 | 50 | 4 |
| 5—14 years | 6,076 | 6,054 | 11 | 11 |
| Totals—Under 15 years .. | 15,214 | 15,104 | 91 | 19 |

Although Schick testing is not practised as a routine in connection with the greater part of the scheme, these tests were carried out largely among hospital patients and staff, but in addition a number were carried out for the purpose of assessing the Schick conversion rates and reaction rates in persons who received injections with the new diphtheria prophylactic P.T.A.P.

The number of primary tests performed during the year on persons not previously immunized was 188, of which 68 gave a positive result and 120 were negative. All attended for the Schick test reading.

1,426 posterior tests were carried out on persons previously immunized, of which 75 gave positive and 1,332 negative results. 19 did not attend for the Schick test reading.

The following table illustrates the progress of the immunization scheme since its inception :—

DIPHTHERIA IMMUNIZATION.

Illustrating the progress of the immunization scheme since its inception.
Number of Manchester Persons, in Age Groups, having had a Complete Course of Injections.

| | 1928 to 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | Total under 5 years at end of 1951. 39949 |
|------------------------|-----------------|-------|-------|-------|-------|-------|------|------|-------|------|-------|------|-------|-------|------|-------|-------|-------|-------|---|
| Under 1 year | 1835 | 691 | 963 | 822 | 1071 | 915 | 740 | 503 | 1497 | 1761 | 2298 | 1767 | 2383 | 2540 | 3349 | 4582 | 4678 | 3863 | 3281 | |
| 1 year .. | 2519 | 805 | 1219 | 1328 | 1169 | 1228 | 965 | 912 | 1882 | 2411 | 3557 | 2927 | 4379 | 4202 | 3444 | 4747 | 3994 | 3222 | 4133 | |
| 2 years .. | 1923 | 788 | 1033 | 863 | 890 | 894 | 576 | 409 | 1295 | 1292 | 1567 | 342 | 1258 | 1517 | 574 | 1139 | 1134 | 837 | 842 | |
| 3 ,, .. | 1888 | 668 | 1146 | 782 | 901 | 824 | 476 | 272 | 1065 | 1140 | 1504 | 168 | 554 | 1045 | 280 | 369 | 439 | 405 | 462 | |
| 4 ,, .. | 1847 | 664 | 1333 | 801 | 906 | 856 | 475 | 238 | 1057 | 920 | 1710 | 145 | 342 | 600 | 202 | 220 | 189 | 207 | 420 | |
| 5 ,, .. | 2059 | 997 | 1256 | 702 | 951 | 866 | 464 | 192 | 1226 | 473 | 1747 | 182 | 264 | 333 | 100 | 132 | 116 | 170 | 444 | |
| 6 ,, .. | 2045 | 987 | 1309 | 772 | 972 | 878 | 447 | 222 | 1241 | 379 | 2165 | 199 | 233 | 269 | 77 | 91 | 74 | 171 | 483 | |
| 7 ,, .. | 1917 | 1076 | 1242 | 751 | 890 | 832 | 382 | 195 | 1215 | 236 | 1577 | 206 | 139 | 215 | 52 | 68 | 58 | 171 | 515 | |
| 8 ,, .. | 1726 | 1415 | 1150 | 810 | 857 | 711 | 408 | 179 | 1137 | 176 | 931 | 106 | 101 | 189 | 43 | 63 | 33 | 141 | 640 | |
| 9 ,, .. | 1557 | 1301 | 1241 | 804 | 678 | 583 | 336 | 162 | 1036 | 112 | 805 | 98 | 68 | 143 | 36 | 54 | 31 | 159 | 584 | |
| 10 ,, .. | 1172 | 1376 | 1002 | 923 | 698 | 613 | 308 | 137 | 1050 | 117 | 864 | 97 | 87 | 86 | 28 | 37 | 23 | 216 | 749 | |
| 11 ,, .. | 890 | 1061 | 907 | 703 | 459 | 444 | 274 | 86 | 933 | 121 | 595 | 72 | 71 | 89 | 15 | 27 | 16 | 165 | 645 | |
| 12 ,, .. | 725 | 630 | 825 | 772 | 419 | 395 | 218 | 43 | 1038 | 131 | 465 | 32 | 67 | 61 | 22 | 18 | 7 | 186 | 702 | |
| 13 ,, .. | 481 | 438 | 820 | 615 | 424 | 396 | 259 | 39 | 502 | 100 | 436 | 33 | 50 | 36 | 11 | 15 | 5 | 145 | 747 | |
| 14 ,, .. | 165 | 247 | 191 | 96 | 117 | 79 | 49 | 11 | 219 | 53 | 51 | 12 | 14 | 17 | 6 | 11 | 5 | 126 | 567 | |
| 15 years and over.. | 323 | 371 | 1201 | 917 | 444 | 240 | 102 | 105 | 309 | 221 | 298 | 139 | 210 | 155 | 112 | 108 | 47 | 60 | 155 | |
| Totals 1928-51 | 23072 | 13515 | 16838 | 12461 | 11846 | 10754 | 6479 | 3705 | 16702 | 9643 | 20570 | 6525 | 10220 | 11497 | 8351 | 11681 | 10849 | 10244 | 15369 | 230321 |
| | | | | | | | | | | | | | | | | | | | | Total 10-15 years. 37320 |
| | | | | | | | | | | | | | | | | | | | | Total 5-10 years. 42083 |
| | | | | | | | | | | | | | | | | | | | | Total under 5 years at end of 1951. 39949 |
| | | | | | | | | | | | | | | | | | | | | Total 15 years & over 110969 |

The totals at the end of 1951 indicate only approximately the immune population, since no account is taken of any deaths that may have ensued amongst the immunized children.

TYPHOID AND PARATYPHOID FEVER.

26 notifications were received, the diagnosis being subsequently corrected in 11 cases. Thus 15 cases occurred and 3 were infected by *B. typhosus* and 12 by *B. paratyphoid*.

23 specimens of blood were submitted to the laboratory by medical practitioners from patients with illness simulating typhoid and none gave positive widal reactions.

CEREBRO-SPINAL FEVER.

36 notifications were received during the year. 17 cases were notified from and treated in various Hospitals in the City. Of the 18 suspected cases notified by general medical practitioners, 17 were removed to Monsall Isolation Hospital, 8 were confirmed, the remaining case died before the arrival of the ambulance. In addition, one child's death was certified by the City Coroner after a post-mortem without inquest as cerebro-spinal fever, thus making a total of 27 cases.

There were 4 deaths from this disease, giving a case mortality rate of 14.8 per cent., as compared with a rate of 21.7 per cent. in 1950.

As regards seasonal prevalence, 16 cases occurred in the first quarter of the year, 2 in the second, 4 in the third, and 5 in the last quarter.

Cases of Cerebro-Spinal Fever in Age Groups and Sexes, 1951.

| Age Groups | No. of Cases Males | No. of Cases Females | Total |
|---------------------|-----------------------|-------------------------|-------|
| 0—5 years | 22 | 1 | 23 |
| 5—10 „ | — | — | — |
| 10—15 „ | — | 2 | 2 |
| 15—20 „ | 1 | — | 1 |
| 20—25 „ | — | — | — |
| 25—35 „ | — | — | — |
| 35 and over | — | 1 | 1 |
| All ages | 23 | 4 | 27 |

POLIOMYELITIS AND POLIO-ENCEPHALITIS.

44 notifications of Poliomyelitis and Polio-encephalitis were received, and of these 23 were confirmed. 2 deaths occurred.

2 cases occurred in the first quarter of the year, 5 in the second, 11 in the third and 5 in the last quarter.

The following are the statistics :—

[illegible]

The distribution of cases was widely scattered over Manchester and no large number occurred in any one area.

Particulars of the 23 cases are given in the following table :—

| Case No. | Sex | Age | Ward | Onset | Notified | Site of Paralysis | Condition—April, 1952 |
|----------|-----|------|------------------------|--------------|--------------|---------------------|--|
| 3 | M | 20 | Crumpsall | 11th Jan. | 17th Jan. | Right arm and leg | Improving, resumed work |
| 6 | F | 7ins | Newton Heath | 7th Feb. | 20th Feb. | Right arm | Reecovered, no paralysis |
| 7 | M | 19 | All Saints | 3rd April | 10th April | Both legs and feet | Slight improvement, wears calipers |
| 9 | F | 4 | Wythenshawe | 9th May | 12th May | Complete paralysis | Slight improvement, attends hospital |
| 10 | M | 1 | Harpurhey | 3 weeks | 11th June | ? | Died 5th June |
| 12 | F | 5 | Blackley | 17th June | 25th June | Left leg, right arm | Slight improvement, wears calipers, attends hospital |
| 13 | F | 4½ | Blackley | 19th June | 25th June | Right leg | Slight improvement, attends hospital |
| 15 | F | 2½ | Gorton North | 4th July | 6th July | Right foot | General improvement, wears calipers |
| 16 | M | 8 | Longsight | 11th July | 13th July | Left deltoid | Recovered, no paralysis |
| 19 | F | 2 | Openshaw | 23rd July | 24th July | Left arm and leg | Improving, attends hospital |
| 20 | M | 15 | Lightbowne | 21st July | 26th July | Shoulders | Recovered, no paralysis |
| 22 | F | 8 | Longsight | 8th August | 9th August | Museles of left leg | Improvement, wears calipers |
| 24 | F | 3 | Moss Side West | 31st July | 13th August | ? | Removed outside Manchester |
| 30 | F | 4¾ | St. Luke's | 28th August | 29th August | ? | No access |
| 31 | F | 6 | Ardwick | 30th August | 10th Sept. | Palate and left leg | Recovered, no paralysis |
| 33 | M | 20 | St. Mark's | 11th Sept. | 24th Sept. | Muscles of leg | Recovered, no paralysis |
| 34 | F | 12 | Bradford | 10th Sept. | 29th Sept. | None | Recovered, no paralysis |
| 35 | M | 14¾ | Ardwick | 22nd Sept. | 25th Sept. | None | Recovered, no paralysis |
| 37 | F | 4 | New Cross | 2nd October | 4th October | Right leg | Slight limp, attends hospital |
| 39 | F | 28 | St. Luke's | 26th October | 28th October | — | Died 30th October |
| 42 | F | 4 | St. George's | 20th October | 13th Nov. | Left arm, right leg | Slight limp, wears calipers |
| 43 | F | 4 | Longsight | 12th Dec. | 15th Dec. | Left deltoid | Improved, receiving massages |
| 44 | M | 4 | St. Peter's | 27th Dec. | 31st Dec. | Both arms and legs | Still in hospital |

Table showing the distribution of cases in Wards,
and health of patients in April, 1952.

| WARD | Notifications | | Confirmed Cases | | Paralytic | | Non-Paralytic | | Deaths | | Condition—April, 1952 | | | | Unob- tained |
|--------------------|---------------|----|-----------------|----|-----------|----|---------------|----|--------|----|-----------------------|----|---------------------------|---|-----------------|
| | | | | | | | | | | | Paralytic | | Recovered No Paralysis | | |
| | | | | | | | | | | | | | | | |
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | | | |
| Alexandra Park | — | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | |
| All Saints | 2 | — | 1 | — | — | — | — | — | — | — | 1 | — | — | — | |
| Ardwick | 3 | 1 | 1 | 1 | — | 1 | — | — | — | — | — | 1 | — | — | |
| Barlow Moor | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Beswick | — | 2 | — | 2 | — | — | — | — | — | — | — | — | — | — | |
| Blackley | — | 3 | — | 1 | — | — | — | — | — | — | — | — | 1 | — | |
| Bradford | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Burnage | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Cheetham | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Chorlton-cum-Hardy | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Collegiate Church | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Crumpsall | 1 | — | 1 | — | 1 | — | — | — | — | — | — | 1 | — | — | |
| Didsbury | — | 2 | — | 1 | — | 1 | — | — | — | — | — | — | — | — | |
| Gorton North | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Gorton South | — | 1 | — | — | 1 | — | — | — | — | 1 | — | — | — | — | |
| Harpurhey | 2 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | |
| Levenshulme | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Lightbowne | 1 | — | 1 | — | — | — | — | — | — | — | — | 1 | — | — | |
| Longsight | 1 | 3 | 1 | 2 | — | 2 | — | — | — | — | — | 1 | — | — | |
| Miles Platting | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Moss Side East | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Moss Side West | 1 | 3 | — | 1 | — | 1 | — | — | — | — | — | — | — | 1 | |
| Moston | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| New Cross | — | 3 | — | 1 | — | 1 | — | — | — | — | — | — | — | — | |
| Newton Heath | — | 1 | — | 1 | — | 1 | — | — | — | — | — | — | 1 | — | |
| Newtown | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Northenden | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | |
| Old Moat | — | 2 | — | 1 | — | 1 | — | — | — | — | — | — | — | — | |
| Openshaw | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | |
| Rusholme | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| St. George's | — | 1 | — | 1 | — | 1 | — | — | — | — | — | — | — | — | |
| St. Luke's | — | 2 | — | 2 | — | 2 | — | — | — | — | — | — | — | 1 | |
| St. Mark's | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| St. Peters | 1 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | |
| Withington | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Wythenshawe | — | 1 | — | 1 | — | — | — | — | — | — | — | — | — | — | |
| Total | 16 | 28 | 8 | 15 | 4 | 14 | 4 | 1 | 1 | 1 | 2 | 5 | 3 | 2 | |

ACUTE ENCEPHALITIS (Infective-Post Infectious).

2 notifications of acute encephalitis (infective), and 1 (post-infectious) were received during the year.

PNEUMONIA.

There were 709 cases of pneumonia notified during the year, consisting of—

| | | | |
|------------------------------|----------------------|-----|-------|
| Primary Pneumonia | Lobar | 413 | } 709 |
| | Lobular | 141 | |
| | Unclassified | 48 | |
| Influenzal Pneumonia | 107 | | |

All these cases were investigated by the Special Investigators and 219 were treated in hospital.

There were 412 deaths, consisting of 87 lobar, 297 lobular and 28 unclassified.

In addition there were 63 deaths from influenza associated with pneumonia.

MEASLES AND GERMAN MEASLES.

| Cases notified | 1951 | | | | |
|--------------------|-------------|-------------|-------------|-------------|-------|
| | 1st quarter | 2nd quarter | 3rd quarter | 4th quarter | Total |
| MEASLES— | | | | | |
| By Doctors | 5,422 | 1,847 | 241 | 438 | 7,947 |
| „ Others | 512 | 392 | 41 | 60 | 1,004 |
| Total | 5,934 | 2,239 | 282 | 498 | 8,953 |
| GERMAN MEASLES— | | | | | |
| By Doctors | 118 | 302 | 320 | 277 | 918 |
| „ Others | 4 | 9 | 30 | 16 | 58 |
| Total | 122 | 311 | 350 | 293 | 976 |

WHOOPING COUGH.

Whooping Cough became compulsorily notifiable in October, 1939. Before this date the source of notification was solely from the schools.

Whooping cough notifications during 1951 :—

| | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|----------------|----------------|----------------|----------------|----------------|-------|
| 1951 | 982 | 615 | 364 | 294 | 2,255 |

**Incidence of Whooping Cough in Manchester
at Age Periods 0—5 and 5 Years and over.**

| Disease | Under 5 years | 5 years and over | Total |
|--------------------------|------------------|---------------------|-------|
| Whooping Cough | 1,754 | 501 | 2,255 |

MALARIA.

No notification was received.

ANTHRAX.

No case of anthrax came to the notice of the Department.

DYSENTERY.

452 notifications of dysentery were received, of which 384 were confirmed as relating to true cases ; no deaths occurred.

Of the 384 cases, 369 proved to be associated with the presence of bacilli of the Sonne type, 1 with other specific organisms, and 14 clinical cases.

TUBERCULOSIS SERVICE.

The Health Committee is the responsible authority for the arrangements in connection with the Prevention of Illness, Care and After-Care (Section 28) set out in Part III of the National Health Service Act, 1946, and since the appointed day, 10th July, 1948, the Tuberculosis Section of the Health Department has continued its preventive and social work in co-operation with the clinical service provided by the Regional Hospital Board. The two departments work together in the same building ; information is freely exchanged and there are no administrative difficulties.

The following table analyses the cases on the Notification Register for 1951.

| | Respiratory | Non-respiratory | Total |
|------------------------|-------------|-----------------|-------|
| Active cases | 2,983 | 505 | 3,488 |
| Arrested cases | 1,338 | 412 | 1,750 |
| Total | 4,321 | 917 | 5,238 |

Number per thousand of the population 7.48

There is still a shortage of hospital and sanatorium beds for the treatment of tuberculosis, but it is gratifying to note that the waiting list is being steadily reduced. On the 31st December, 1951, 127 patients were awaiting admission to institution and this shows a reduction of 39 on the comparable figure for 1950.

Tuberculosis Health Visiting.

The 36 municipal wards of the City are divided into 13 districts for the purpose of visiting, each area being the responsibility of a Tuberculosis Health Visitor, or Inspector. The Health Visitors also attend on a weekly rota at the Chest Clinic and assist in the work of the clinical and treatment sessions held there. They are able at any time to consult with the Chest Physicians on any case under their supervision.

The following table summarises the work of the visiting staff for 1951 :—

| | |
|------------------------------------|--------|
| Primary investigations | 981 |
| Routine domiciliary visits | 18,264 |
| Post-death visits | 804 |
| Special visits | 2,227 |
| Ambulance journeys | 203 |

Home Nursing.

The nursing of seriously ill cases in the home has again been of great value and the provision of motor transport facilitates the work to an appreciable degree. The Chest Physicians and General Practitioners make the fullest use of the service, and help for the patient is usually forthcoming immediately on request. The clinical nursing of patients in their homes is carried out by one nurse who covers the whole of the City.

A record of her work during the past three years follows :—

| Year | 1949 | 1950 | 1951 |
|------------------|-------|-------|-------|
| Patients | 90 | 119 | 64 |
| Visits | 1,724 | 2,142 | 1,806 |

Bed-rests, air-rings, urinals, macintosh sheeting, etc., are available on loan to patients under domiciliary treatment, and during the year 245 articles were issued.

Sputum boxes and flasks are issued free to patients and the disinfection of rooms and bedding is arranged by the Section. The figures for the year are as follows :—

| | | |
|----------------------|---------|--------|
| Sputum boxes issued | .. .. . | 47,119 |
| Sputum flasks issued | .. .. . | 163 |
| Premises disinfected | .. .. . | 744 |
| Bedding disinfected | .. .. . | 100 |

Grants in Aid.

During 1951 the National Assistance Board again raised its allowances and the Health Committee scales which govern the food and milk grants were adjusted accordingly. The scale is as follows :—

| | | Minimum requirements | |
|---|---------|----------------------|----|
| | | s. | d. |
| One adult (single or widow) | .. .. . | 47 | 3 |
| One parent and one child | .. .. . | 60 | 6 |
| Two parents or adults | .. .. . | 73 | 0 |
| Two parents and one child | .. .. . | 86 | 3 |
| (Add 13s. 3d. for each additional child.) | | | |

Number of patients assisted with—

| | | |
|---------------------------------|---------|-----|
| (a) Food grants | .. .. . | 127 |
| (b) Loans of bed and bedding | .. .. . | 126 |
| (c) Loans of nursing requisites | .. .. . | 95 |

Housing.

Applications for assistance in rehousing are carefully sifted by the Chest Physicians before any recommendation for priority on medical grounds is made. Patients with infectious tuberculosis are given first priority and the Tuberculosis Health Visitors are frequently asked for full reports on the housing and environmental conditions.

Housing applications :—

| | | |
|-----------------------------------|---------|-----|
| Cases reviewed | .. .. . | 473 |
| Cases recommended | .. .. . | 236 |
| Decision deferred | .. .. . | 33 |
| Families rehoused during the year | .. .. . | 133 |

Colonization.

For a number of years prior to 1948, suitable patients were recommended for colonization and accepted for admission to the East Lancashire Tuberculosis Colony at Barrowmore. During the year under review the Ministry of Health has approved the City Council's proposals for making provision for the care and after-care of persons suffering from tuberculosis, by arranging for employment in sheltered industry including the use of voluntary village settlements, etc. Several patients have been recommended by the Regional Hospital Board for admission to village settlements for periods of observation as to their suitability for colonization, and the Health Committee will accept responsibility when the liability of the Regional Hospital Board terminates.

Home Helps.

The Home Help Section has again given valuable aid to those families and households where tuberculosis has seriously limited the work of the home. Volunteers only are allocated to these duties and each Home Help has a periodical X-ray examination at the Chest Clinic. Many calls for Home Helps are received, but the rise in the cost of living seriously limits the income of a tuberculous household and families frequently cannot afford to pay the assessed contribution towards the cost of domestic help.

The following report has been prepared by Dr. M. J. Greenberg, Consultant Chest Physician, whose appointment is a joint one made by the Manchester Regional Hospital Board and the Manchester Health Committee :—

NOTIFICATION.

The notification figures for new cases of pulmonary tuberculosis show a reduction of 26 on the figure for the previous year, being 711 as compared with 737 in 1950.

The non-pulmonary cases numbered 105, this being a decrease of 27 from the figure of 132 in 1950.

Respiratory Tuberculosis.

In males there was an increase of 14 cases notified in the 25–34 age group, but the later age groups from 35 onward show an overall reduction of 40 in comparison with the 1950 figure.

The female notifications were 7 fewer than in 1950. There was an increase of 8 in the 2–4 age group, but a reduction of 10 cases in both the 15–19 and 20–24 age groups.

Non-Respiratory Tuberculosis.

The number of notified cases in males shows an appreciable reduction of 28 over the 1950 figure, the most noticeable being a decrease of 9 and 10 in the 2–4 and 5–9 age groups respectively.

The female notifications were 1 more than in 1950, and do not call for particular comment.

MORTALITY.

Respiratory Tuberculosis.

The Registrar-General's figure of 318 shows a substantial reduction of 93 in the number of deaths, made up of 55 males and 38 females.

Non-Respiratory Tuberculosis.

18 males and 21 females died from non-respiratory tuberculosis, a reduction of 7 males and 1 female from the 1950 figures.

The number of deaths of non-notified cases of respiratory tuberculosis was 37—11·6 per cent.

The number of deaths of non-notified cases of non-respiratory tuberculosis was 4—10·3 per cent.

The percentage of deaths of non-notified cases of all forms of tuberculosis was 11·5.

There were, in addition, 5 deaths of non-notified cases of respiratory tuberculosis, and 3 deaths of non-notified cases of non-respiratory tuberculosis, outside Manchester, which were adjudged by the Registrar-General to be properly referable to this area.

There is still a shortage of sanatorium and hospital beds, and the problem of the homeless chronic infectious case in institution, in lodging houses and unsuitable environment has still to be met.

The average waiting time for patients on the list for admission to sanatorium is now approximately 4–5 months for males and 3 months for females, as compared with 5 months for both sexes a year ago.

Domiciliary Active Treatment.

During the year 24 cases were carrying out a sanatorium regime in their homes after a short stay in the Baguley Sanatorium, where collapse therapy was commenced. The bed situation is thus relieved a little, and some of these patients sometimes improve sufficiently to obviate subsequent admission to sanatorium. The number of such cases is severely restricted by the unsuitability of their home surroundings. Although the criteria required are not exacting, viz., a room for the patient, and somebody to provide food during the day, they cannot be met in the majority of otherwise suitable cases.

In addition to this form of domiciliary treatment, a considerable number of patients are treated at home by the administration of drugs such as Streptomycin, P.A.S., and, in a few selected cases, the recently introduced Isonicotinic Acid Hydrazide. Such treatment is justified only by the shortage of hospital beds, and should be undertaken only with close radiological and laboratory controls.

Rehabilitation.

During the year under review 127 Forms D.P.1(X) have been completed for the Ministry of Labour, and the special interviewing panels were held throughout the year. 14 cases were interviewed by the Chest Physician and the Disablement Rehabilitation Officer; 4 were subsequently placed in employment direct, 3 were found work after a course of rehabilitation, 3 found employment on their own, 3 were unfit and 1 was still unemployed on the 31st December, 1951.

Attendances at the Chest Clinic.

7,629 persons (excluding contacts) were examined for the first time during the year, an increase of 2,311 over the total for 1950. Attendances numbered 28,372, an increase of 5,005 over the previous year.

X-ray examinations numbered 16,846, an increase of 3,974 over 1950, and this figure will be further increased when the proposed new X-ray Department becomes operative.

B.C.G. Vaccination.

The scheme in Manchester commenced in the spring of 1951, and the first vaccinations were carried out on the 6th April. During 1951, 507 individuals were vaccinated, and we anticipate this figure will be greatly exceeded during 1952. The appointment of a full-time clerk who commenced duty in May, 1951, has greatly facilitated the work, and has contributed in no small measure to the success of the scheme.

The scheme has generally been limited to contacts of known cases of tuberculosis, and nursing and hospital staffs whose work may bring them in contact with this disease.

On the primary investigation of a newly notified case of tuberculosis, the Tuberculosis Health Visitor makes a careful enquiry into the contacts in the household and broaches the question of B.C.G. vaccination. If the contacts or parents are willing, a Tuberculin Jelly Patch Test is performed immediately in the home. If they are unwilling for B.C.G. Vaccination, the Tuberculin Tests and any necessary X-rays are nevertheless undertaken, and the contacts followed up at regular intervals.

If the test is negative, the contact or individual is isolated from any known case of infectious tuberculosis for a period of six weeks. At the end of that time a Mantoux test is performed by the Chest Physician at the Chest Clinic.

If the Mantoux is positive, B.C.G. is not necessary. The contact is X-rayed and followed up as required.

If the Mantoux is negative, the person is vaccinated with B.C.G. immediately.

The vaccinated person is again segregated from any known tuberculous infection for a period of six weeks, and then a third tuberculin test is performed. This is a Mantoux test carried out by the Chest Physician as before, and if the vaccination is successful, the result will be positive. An X-ray examination follows, and if nothing abnormal is found, no further action is necessary, and the contact is not seen again until a year's time has elapsed.

In the 507 cases vaccinated only 3 failed to convert, and these were all successfully re-vaccinated. The most serious complication was a discharging axillary gland, and this soon healed.

It must not be thought that B.C.G. is a guarantee of complete protection against the development of tuberculosis. What it does is to establish a primary infection which, owing to the small dose and harmless character of the organisms, will heal and will establish tuberculin sensitivity without risk. This sensitivity means that there will be increased cellular activity against any subsequent invasion of virulent tubercle bacilli, and if the dose of these is not too large they will be overcome by the acquired resistance which has developed as a result of the B.C.G. How long the protection lasts is uncertain, but we propose to do tuberculin tests at annual intervals to find this out. From results in other countries, it may be 5 to 10 years. During that time in urban areas it is likely that other small infections may be sustained and these will act as "booster" doses to increase the resistance.

An important factor in B.C.G. is that it will afford very great protection against the severe forms of childhood tuberculosis, such as tuberculous meningitis and miliary tuberculosis. How much effect it has against the adult form of phthisis is still open to discussion, but judging by reports from the Scandinavian countries and the U.S.A. it will be considerable. At present its use in this country is restricted to certain groups, but it may well be that soon it will be made available to all negative reactors to the tuberculin test.

The statistics for the year are shown in the following tables :—

TABLE 1.

Primary Notifications of and Deaths from Tuberculosis.

Comparative Figures, 1931—1951.

(Rates per Thousand of the Population.)

| Year | Primary Notifications | | | | | | General Death Rate, M/cr. | Death Rate All Respi- ratory Diseases except Tuber- culosis (M/cr.) | Death Rates, Tuberculosis Manchester | | | | | | Death Rate, Respi- ratory Tuber- culosis, England and Wales |
|------|-----------------------|------------|----------------------|-----------------|------------|----------------------|------------------------------------|---|---|------------|----------------------|-----------------|------------|----------------------|---|
| | Respiratory | | | Non-Respiratory | | | | | Respiratory | | | Non-Respiratory | | | |
| | M. Rate | F. Rate | Per- sons Rate | M. Rate | F. Rate | Per- sons Rate | | | M. Rate | F. Rate | Per- sons Rate | M. Rate | F. Rate | Per- sons Rate | |
| 1931 | 1·89 | 1·32 | 1·59 | 0·68 | 0·57 | 0·62 | 13·79 | 2·59 | 1·42 | 0·84 | 1·12 | 0·18 | 0·17 | 0·17 | 0·719 |
| 1932 | 1·60 | 1·20 | 1·39 | 0·55 | 0·47 | 0·51 | 13·21 | 1·98 | 1·23 | 0·80 | 1·00 | 0·18 | 0·13 | 0·16 | 0·666 |
| 1933 | 1·75 | 1·06 | 1·39 | 0·42 | 0·38 | 0·40 | 13·65 | 1·97 | 1·29 | 0·82 | 1·04 | 0·13 | 0·13 | 0·13 | 0·669 |
| 1934 | 1·69 | 1·06 | 1·36 | 0·47 | 0·34 | 0·40 | 12·63 | 1·47 | 1·39 | 0·67 | 1·01 | 0·17 | 0·15 | 0·16 | 0·615 |
| 1935 | 1·59 | 1·00 | 1·28 | 0·40 | 0·38 | 0·39 | 13·53 | 1·73 | 1·21 | 0·72 | 0·95 | 0·13 | 0·12 | 0·13 | 0·587 |
| 1936 | 1·47 | 1·07 | 1·26 | 0·43 | 0·35 | 0·39 | 13·72 | 1·83 | 1·13 | 0·70 | 0·90 | 0·15 | 0·13 | 0·14 | 0·564 |
| 1937 | 1·73 | 1·03 | 1·36 | 0·52 | 0·46 | 0·49 | 13·87 | 1·70 | 1·14 | 0·72 | 0·92 | 0·18 | 0·14 | 0·16 | 0·566 |
| 1938 | 1·52 | 0·98 | 1·24 | 0·41 | 0·36 | 0·38 | 12·61 | 1·32 | 1·07 | 0·66 | 0·86 | 0·14 | 0·13 | 0·14 | 0·516 |
| 1939 | 1·49 | 0·96 | 1·21 | 0·40 | 0·36 | 0·38 | 13·39 | 1·30 | 1·10 | 0·64 | 0·86 | 0·16 | 0·13 | 0·14 | 0·522 |
| 1940 | 1·95 | 1·13 | 1·51 | 0·41 | 0·36 | 0·38 | 17·98 | 4·00 | 1·43 | 0·78 | 1·09 | 0·16 | 0·13 | 0·15 | 0·588 |
| 1941 | 2·12 | 1·16 | 1·61 | 0·45 | 0·41 | 0·43 | 16·64 | 2·81 | 1·45 | 0·84 | 1·13 | 0·19 | 0·19 | 0·19 | 0·602 |
| 1942 | 1·78 | 1·22 | 1·48 | 0·37 | 0·41 | 0·39 | 14·72 | 2·13 | 1·23 | 0·76 | 0·99 | 0·14 | 0·12 | 0·13 | 0·542 |
| 1943 | 1·78 | 1·25 | 1·50 | 0·41 | 0·49 | 0·45 | 15·50 | 2·64 | 1·14 | 0·71 | 0·91 | 0·16 | 0·15 | 0·16 | 0·557 |
| 1944 | 1·62 | 1·14 | 1·37 | 0·33 | 0·36 | 0·34 | 14·20 | 2·04 | 0·95 | 0·66 | 0·80 | 0·13 | 0·10 | 0·11 | 0·524 |
| 1945 | 1·73 | 1·23 | 1·46 | 0·34 | 0·31 | 0·32 | 14·41 | 2·33 | 1·00 | 0·62 | 0·80 | 0·16 | 0·10 | 0·13 | 0·515 |
| 1946 | 1·56 | 0·89 | 1·20 | 0·28 | 0·22 | 0·25 | 13·52 | 2·09 | 0·92 | 0·48 | 0·69 | 0·08 | 0·12 | 0·10 | 0·468 |
| 1947 | 1·41 | 0·91 | 1·15 | 0·21 | 0·18 | 0·19 | 13·79 | 2·11 | 0·88 | 0·46 | 0·66 | 0·11 | 0·08 | 0·09 | 0·473 |
| 1948 | 1·50 | 1·01 | 1·24 | 0·19 | 0·21 | 0·20 | 12·27 | 1·80 | 0·89 | 0·50 | 0·69 | 0·06 | 0·08 | 0·07 | 0·440 |
| 1949 | 1·58 | 1·02 | 1·28 | 0·20 | 0·24 | 0·22 | 12·91 | 2·10 | 0·76 | 0·45 | 0·60 | 0·06 | 0·04 | 0·05 | 0·403 |
| 1950 | 1·28 | 0·84 | 1·05 | 0·21 | 0·17 | 0·19 | 12·77 | 1·86 | 0·77 | 0·42 | 0·58 | 0·07 | 0·06 | 0·07 | 0·321 |
| 1951 | 1·23 | 0·82 | 1·02 | 0·13 | 0·17 | 0·15 | 13·82 | 2·50 | 0·61 | 0·32 | 0·45 | 0·05 | 0·06 | 0·06 | 0·275 |

TABLE 2.

Summary of Notifications of Tuberculosis during the Period from the 1st January, 1951, to the 31st December, 1951, in the County Borough of Manchester.

| Age Periods | FORMAL NOTIFICATIONS | | | | | | | | | | | | | |
|----------------------------------|--|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|
| | Number of Primary Notifications of New Cases of Tuberculosis | | | | | | | | | | | | | |
| | 0- | 1- | 2- | 5- | 10- | 15- | 20- | 25- | 35- | 45- | 55- | 65- | 75- | Total (all ages) |
| Respiratory, Males | 6 | 5 | 13 | 12 | 16 | 35 | 45 | 85 | 58 | 75 | 39 | 16 | 1 | 406 |
| Respiratory, Females | 5 | 7 | 13 | 9 | 11 | 49 | 69 | 77 | 31 | 23 | 9 | 2 | — | 305 |
| Non-Respiratory, Males | 1 | — | 5 | 2 | 8 | 6 | 5 | 7 | 3 | 2 | 2 | 1 | — | 42 |
| Non-Respiratory, Females | 1 | 2 | 6 | 5 | 5 | 12 | 7 | 10 | 6 | 4 | 3 | 2 | — | 63 |

New Cases of Tuberculosis Coming to the knowledge of the Medical Officer of Health during the above-mentioned period, otherwise than by formal notification.

| Source of Information | | | NUMBER OF CASES IN AGE GROUPS | | | | | | | | | | | | | Total |
|--|-----------------|------|-------------------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| | | | 0- | 1- | 2- | 5- | 10- | 15- | 20- | 25- | 35- | 45- | 55- | 65- | 75- | |
| Death Returns from Local Registrars | Respiratory | { M. | 1 | — | — | — | — | — | — | 3 | 3 | 5 | 7 | 7 | 3 | 29 (A) |
| | | { F. | — | — | — | — | — | — | — | 2 | 3 | 1 | 1 | 1 | — | 8 (B) |
| | Non-Respiratory | { M. | — | — | — | — | — | — | — | 3 | — | — | — | — | — | 3 (C) |
| | | { F. | — | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 (D) |
| Death Returns from Registrar-General (transferable deaths) | Respiratory | { M. | 1 | — | 1 | — | — | — | — | — | — | — | — | 1 | — | 3 (A) |
| | | { F. | — | — | — | — | — | — | — | — | — | — | 2 | — | — | 2 (B) |
| | Non-Respiratory | { M. | — | — | — | — | — | — | 1 | 2 | — | — | — | — | — | 3 (C) |
| | | { F. | — | — | — | — | — | — | — | — | — | — | — | — | — | — (D) |
| Posthumous Notifications | Respiratory | { M. | — | — | — | — | — | — | — | — | 1 | 1 | 2 | 1 | — | 5 (A) |
| | | { F. | — | — | — | — | — | — | 1 | — | — | — | — | 2 | — | 3 (B) |
| | Non-Respiratory | { M. | — | — | 1 | — | — | — | — | — | — | — | 2 | — | — | 3 (C) |
| | | { F. | — | 1 | — | — | — | — | — | — | — | — | — | 1 | — | 2 (D) |
| “ Transfers ” from Other Areas (excluding transferable deaths) | Respiratory | { M. | — | — | 1 | — | — | 1 | 10 | 20 | 10 | 4 | 2 | 1 | — | 49 (A) |
| | | { F. | — | — | — | 1 | 1 | 2 | 12 | 18 | 4 | 1 | — | — | — | 39 (B) |
| | Non-Respiratory | { M. | — | — | — | — | 1 | — | — | 1 | 1 | — | — | — | — | 3 (C) |
| | | { F. | — | — | — | 2 | 1 | — | 1 | 1 | 2 | 1 | — | — | — | 8 (D) |
| Other Sources | Respiratory | { M. | — | — | — | — | — | — | — | — | — | — | — | — | — | — (A) |
| | | { F. | — | — | — | — | — | — | — | — | — | — | — | — | — | — (B) |
| | Non-Respiratory | { M. | — | — | — | — | — | — | — | — | — | — | — | — | — | — (C) |
| | | { F. | — | — | — | — | — | — | — | — | — | — | — | — | — | — (D) |

| | |
|------------|----|
| Totals (A) | 86 |
| (B) | 52 |
| (C) | 12 |
| (D) | 11 |

TABLE 3.
Primary Notifications of, and Deaths from, Respiratory Tuberculosis, 1931-1951.
(Manchester Figures—52 Weeks).
Age Groups.

| | 0- | | | | 1-4 | | | | 5-9 | | | | 10-14 | | | | 15-19 | | | | 20-24 | | | | 25-34 | | | | 35-44 | | | | 45-54 | | | | 55-64 | | | | 65- | | | | NOTIFICATIONS | | | DEATHS | | | | | | | | | | | | | | |
|------------------------|----|----|----|----|-----|----|----|----|-----|----|----|----|-------|----|----|----|-------|----|----|----|-------|-----|----|----|-------|-----|----|-----|-------|----|-----|----|-------|----|-----|----|-------|----|-------|----|-----|-------|----|----|---------------|----|----|--------|----|----|-----|-----|------|-----|------|-----|------|-----|------|-----|-----|-----|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total | M. | F. | Total | | | | | | | | | | | | | | | | | | | | |
| Notifications, 1931 .. | — | 1 | | | 4 | 6 | | | 36 | 38 | | | 25 | 36 | | | 65 | 75 | | | 79 | 102 | | | 117 | 131 | | | 126 | 67 | | | 134 | 51 | | | 84 | 27 | | | 20 | 5 | | | | | | | | | | | | | | | | | | | | |
| Deaths, „ .. | | | 2 | 2 | | | 2 | 2 | | | 3 | 4 | | | 3 | 7 | | | 24 | 45 | | | 44 | 68 | | | 94 | 100 | | | 126 | 67 | | | 134 | 51 | | | 128 | 37 | | | 84 | 27 | | | 91 | 20 | 20 | 5 | 29 | 6 | 690 | 539 | 1229 | 519 | 342 | 861 | | | | |
| Notifications, 1932 .. | — | 1 | | | 13 | 11 | | | 18 | 14 | | | 7 | 21 | | | 53 | 90 | | | 58 | 94 | | | 112 | 113 | | | 117 | 73 | | | 121 | 49 | | | 61 | 12 | | | 73 | 16 | | | 16 | 7 | | | 19 | 11 | 576 | 485 | 1061 | 442 | 324 | 766 | | | | | | |
| Deaths, „ .. | | | — | 2 | | | 5 | 6 | | | — | 4 | | | 1 | 9 | | | 18 | 36 | | | 43 | 71 | | | 69 | 83 | | | 117 | 73 | | | 121 | 49 | | | 129 | 36 | | | 61 | 12 | | | 73 | 16 | | | 16 | 7 | | | 29 | 11 | 576 | 485 | 1061 | 442 | 324 | 766 |
| Notifications, 1933 .. | 2 | 1 | | | 5 | 6 | | | 9 | 8 | | | 9 | 18 | | | 50 | 72 | | | 78 | 87 | | | 128 | 115 | | | 116 | 55 | | | 144 | 40 | | | 66 | 18 | | | 81 | 17 | | | 19 | 7 | | | 15 | 8 | 626 | 427 | 1053 | 461 | 330 | 791 | | | | | | |
| Deaths, „ .. | | | 1 | 1 | | | 6 | 4 | | | 2 | 2 | | | 2 | 7 | | | 21 | 48 | | | 40 | 67 | | | 83 | 78 | | | 116 | 55 | | | 144 | 40 | | | 106 | 41 | | | 66 | 18 | | | 81 | 17 | | | 19 | 7 | | | 15 | 8 | 626 | 427 | 1053 | 461 | 330 | 791 |
| Notifications, 1934 .. | — | — | | | 5 | 3 | | | 9 | 10 | | | 14 | 21 | | | 49 | 76 | | | 69 | 88 | | | 112 | 105 | | | 108 | 59 | | | 123 | 34 | | | 82 | 19 | | | 79 | 21 | | | 30 | 10 | | | 29 | 7 | 601 | 425 | 1026 | 493 | 268 | 761 | | | | | | |
| Deaths, „ .. | | | 3 | 1 | | | 5 | 3 | | | 3 | 3 | | | 2 | 4 | | | 20 | 30 | | | 50 | 56 | | | 80 | 69 | | | 105 | 39 | | | 123 | 34 | | | 117 | 35 | | | 82 | 19 | | | 79 | 21 | | | 30 | 10 | | | 29 | 7 | 601 | 425 | 1026 | 493 | 268 | 761 |
| Notifications, 1935 .. | 3 | — | | | 4 | 4 | | | 14 | 19 | | | 18 | 11 | | | 43 | 56 | | | 57 | 87 | | | 105 | 91 | | | 115 | 57 | | | 120 | 44 | | | 67 | 22 | | | 59 | 18 | | | 14 | 6 | | | 27 | 10 | 560 | 397 | 957 | 428 | 286 | 714 | | | | | | |
| Deaths, „ .. | | | 4 | — | | | — | 2 | | | 3 | 4 | | | — | 4 | | | 17 | 40 | | | 37 | 57 | | | 78 | 75 | | | 115 | 57 | | | 120 | 44 | | | 116 | 37 | | | 67 | 22 | | | 59 | 18 | | | 14 | 6 | | | 27 | 10 | 560 | 397 | 957 | 428 | 286 | 714 |
| Notifications, 1936 .. | — | 1 | | | 2 | 3 | | | 8 | 9 | | | 9 | 23 | | | 40 | 63 | | | 53 | 103 | | | 99 | 92 | | | 95 | 70 | | | 100 | 30 | | | 88 | 32 | | | 84 | 21 | | | 80 | 23 | | | 24 | 8 | | | 24 | 7 | 514 | 423 | 937 | 396 | 275 | 671 | | |
| Deaths, „ .. | | | — | 1 | | | 2 | 1 | | | — | 5 | | | 2 | 10 | | | 19 | 40 | | | 30 | 53 | | | 66 | 60 | | | 95 | 70 | | | 100 | 30 | | | 88 | 32 | | | 84 | 21 | | | 80 | 23 | | | 24 | 8 | | | 24 | 7 | 514 | 423 | 937 | 396 | 275 | 671 |
| Notifications, 1937 .. | 1 | — | | | 2 | 9 | | | 19 | 8 | | | 9 | 12 | | | 51 | 73 | | | 57 | 85 | | | 106 | 92 | | | 115 | 56 | | | 121 | 27 | | | 89 | 24 | | | 87 | 26 | | | 74 | 26 | | | 33 | 12 | | | 40 | 11 | 601 | 400 | 1001 | 395 | 279 | 674 | | |
| Deaths, „ .. | | | 1 | 1 | | | 4 | 3 | | | 2 | 1 | | | — | 2 | | | 20 | 39 | | | 24 | 53 | | | 60 | 68 | | | 115 | 56 | | | 121 | 27 | | | 89 | 24 | | | 87 | 26 | | | 74 | 26 | | | 33 | 12 | | | 40 | 11 | 601 | 400 | 1001 | 395 | 279 | 674 |
| Notifications, 1938 .. | 4 | 2 | | | 4 | 3 | | | 14 | 13 | | | 13 | 14 | | | 52 | 64 | | | 60 | 78 | | | 85 | 97 | | | 90 | 51 | | | 95 | 34 | | | 103 | 28 | | | 81 | 21 | | | 90 | 14 | | | 28 | 4 | | | 24 | 6 | 526 | 381 | 907 | 370 | 257 | 627 | | |
| Deaths, „ .. | | | 1 | — | | | 2 | 1 | | | — | 2 | | | 2 | 4 | | | 14 | 33 | | | 21 | 57 | | | 54 | 76 | | | 90 | 51 | | | 95 | 34 | | | 103 | 28 | | | 81 | 21 | | | 90 | 14 | | | 28 | 4 | | | 24 | 6 | 526 | 381 | 907 | 370 | 257 | 627 |
| Notifications, 1939 .. | 1 | 2 | | | 4 | 4 | | | 9 | 7 | | | 8 | 10 | | | 53 | 71 | | | 40 | 81 | | | 81 | 73 | | | 106 | 54 | | | 91 | 18 | | | 77 | 24 | | | 73 | 23 | | | 85 | 16 | | | 26 | 14 | | | 28 | 6 | 492 | 357 | 849 | 365 | 236 | 601 | | |
| Deaths, „ .. | | | — | 1 | | | 3 | — | | | — | 1 | | | 1 | 4 | | | 22 | 31 | | | 27 | 46 | | | 53 | 77 | | | 106 | 54 | | | 91 | 18 | | | 77 | 24 | | | 73 | 23 | | | 85 | 16 | | | 26 | 14 | | | 28 | 6 | 492 | 357 | 849 | 365 | 236 | 601 |
| Notifications, 1940 .. | 3 | — | | | 2 | 2 | | | 10 | 2 | | | 6 | 13 | | | 67 | 71 | | | 47 | 82 | | | 102 | 93 | | | 107 | 51 | | | 120 | 31 | | | 90 | 27 | | | 71 | 20 | | | 74 | 17 | | | 37 | 6 | | | 40 | 12 | 572 | 371 | 943 | 420 | 258 | 678 | | |
| Deaths, „ .. | | | 2 | 1 | | | — | 1 | | | — | 1 | | | 1 | 4 | | | 27 | 35 | | | 18 | 39 | | | 72 | 70 | | | 102 | 93 | | | 120 | 31 | | | 90 | 27 | | | 71 | 20 | | | 74 | 17 | | | 37 | 6 | | | 40 | 12 | 572 | 371 | 943 | 420 | 258 | 678 |

TABLE 4. Primary Notifications of, and Deaths from, Non-Respiratory Tuberculosis, 1931-1951.
(Manchester Figures—52 Weeks).
Age Groups.

| | 0-1 | | | | 1-4 | | | | 5-9 | | | | 10-14 | | | | 15-19 | | | | 20-24 | | | | 25-34 | | | | 35-44 | | | | 45-54 | | | | 55-64 | | | | 65- | | | | NOTIFICATIONS | | | DEATHS | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----|----|----|----|-----|----|----|----|-----|----|----|----|-------|----|----|----|-------|----|----|----|-------|----|----|----|-------|----|----|----|-------|----|----|----|-------|----|----|----|-------|----|-------|----|-----|-------|---|---|---------------|-----|-----|--------|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | Total | M. | F. | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Notifications, 1931 | 4 | 6 | | | 52 | 31 | | | 52 | 40 | | | 37 | 45 | | | 31 | 35 | | | 19 | 19 | | | 23 | 30 | | | 10 | 12 | | | 16 | 7 | | | — | 5 | | | 5 | 2 | | | 249 | 232 | 481 | 65 | 68 | 133 | | | | | | | | | | | | | | | | | | | | | | |
| Deaths, „ | | | 5 | 5 | | | 24 | 18 | | | 4 | 7 | | | 3 | 5 | | | 4 | 9 | | | 1 | 1 | | | 9 | 12 | | | 6 | 3 | | | 2 | 3 | | | 5 | 4 | 4 | | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Notifications, 1932 | 2 | 4 | | | 34 | 35 | | | 53 | 31 | | | 20 | 26 | | | 26 | 26 | | | 11 | 20 | | | 20 | 23 | | | 16 | 12 | | | 9 | 9 | | | 5 | 3 | | | 1 | 2 | | | 2 | 3 | | | 197 | 191 | 388 | 65 | 54 | 119 | | | | | | | | | | | | | | | | | | |
| Deaths, „ | | | 6 | 1 | | | 19 | 16 | | | 10 | 7 | | | 6 | 5 | | | 7 | 5 | | | 4 | 1 | | | 8 | 3 | | | 1 | 4 | | | 1 | 5 | | | 5 | 3 | | | 1 | 4 | | | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Notifications, 1933 | 4 | 2 | | | 28 | 18 | | | 37 | 32 | | | 15 | 26 | | | 14 | 17 | | | 14 | 14 | | | 19 | 15 | | | 11 | 16 | | | 4 | 9 | | | 5 | 3 | | | — | 1 | | | 1 | 2 | | | 151 | 153 | 304 | 46 | 54 | 100 | | | | | | | | | | | | | | | | | | |
| Deaths, „ | | | 5 | 3 | | | 8 | 11 | | | 4 | 6 | | | 3 | 2 | | | 7 | 9 | | | 4 | 3 | | | 4 | 8 | | | 4 | 6 | | | 4 | 3 | | | 5 | 3 | | | 2 | 1 | | | — | 1 | | | 1 | 2 | | | | | | | | | | | | | | | | | | | | |
| Notifications, 1934 | 1 | 6 | | | 38 | 14 | | | 34 | 30 | | | 23 | 18 | | | 19 | 15 | | | 15 | 13 | | | 14 | 23 | | | 11 | 10 | | | 7 | 4 | | | 3 | 3 | | | 1 | 1 | | | 1 | 1 | | | 166 | 137 | 303 | 62 | 58 | 120 | | | | | | | | | | | | | | | | | | |
| Deaths, „ | | | 5 | 4 | | | 14 | 9 | | | 6 | 9 | | | 7 | 5 | | | 5 | 7 | | | 8 | 4 | | | 8 | 7 | | | 11 | 10 | | | 5 | 6 | | | 7 | 4 | | | 1 | 5 | | | 3 | 3 | | | 2 | 1 | | | 1 | 1 | | | 1 | 1 | | | 166 | 137 | 303 | 62 | 58 | 120 | | | | |
| Notifications, 1935 | 3 | — | | | 25 | 20 | | | 33 | 21 | | | 26 | 18 | | | 12 | 17 | | | 12 | 11 | | | 12 | 34 | | | 6 | 16 | | | 4 | 9 | | | 7 | 6 | | | 4 | 5 | | | 4 | 4 | | | 2 | 4 | | | — | 1 | | | 142 | 152 | 294 | 47 | 47 | 94 | | | | | | | | | | |
| Deaths, „ | | | 2 | 1 | | | 9 | 8 | | | 4 | 5 | | | 3 | 3 | | | 3 | 5 | | | 8 | 4 | | | 5 | 4 | | | 4 | 9 | | | 4 | 3 | | | 4 | 5 | | | 4 | 4 | | | 2 | 4 | | | — | 1 | | | 142 | 152 | 294 | 47 | 47 | 94 | | | | | | | | | | | | |
| Notifications, 1936 | 2 | 2 | | | 31 | 19 | | | 27 | 27 | | | 24 | 20 | | | 15 | 22 | | | 11 | 20 | | | 13 | 16 | | | 8 | 4 | | | 1 | 7 | | | 10 | 4 | | | 8 | 3 | | | 5 | 2 | | | 1 | 2 | | | 1 | 1 | | | 150 | 139 | 289 | 54 | 51 | 105 | | | | | | | | | | |
| Deaths, „ | | | 3 | 3 | | | 12 | 9 | | | 8 | 8 | | | 5 | 4 | | | 5 | 8 | | | 6 | 6 | | | 1 | 7 | | | 8 | 4 | | | 1 | 2 | | | 10 | 4 | | | 7 | 1 | | | 8 | 3 | | | 5 | 2 | | | 1 | 2 | | | 1 | 1 | | | 150 | 139 | 289 | 54 | 51 | 105 | | | | |
| Notifications, 1937 | 5 | 4 | | | 32 | 21 | | | 32 | 29 | | | 21 | 18 | | | 31 | 30 | | | 8 | 26 | | | 22 | 22 | | | 8 | 4 | | | 11 | 15 | | | 4 | 4 | | | 5 | 3 | | | 4 | 2 | | | 8 | 6 | | | 8 | 3 | | | 4 | 5 | | | 4 | 3 | | | 179 | 179 | 358 | 61 | 54 | 115 | | |
| Deaths, „ | | | 4 | 2 | | | 9 | 13 | | | 5 | 5 | | | 6 | 3 | | | 6 | 6 | | | 3 | 9 | | | 8 | 4 | | | 11 | 15 | | | 4 | 4 | | | 5 | 3 | | | 4 | 2 | | | 8 | 6 | | | 8 | 3 | | | 4 | 5 | | | 4 | 3 | | | 179 | 179 | 358 | 61 | 54 | 115 | | | | |
| Notifications, 1938 | 7 | 2 | | | 24 | 14 | | | 23 | 22 | | | 21 | 21 | | | 21 | 21 | | | 9 | 18 | | | 16 | 22 | | | 3 | 8 | | | 10 | 7 | | | 2 | 3 | | | 8 | 5 | | | 6 | 2 | | | 1 | 4 | | | 2 | 5 | | | 2 | 4 | | | 4 | 2 | | | 142 | 140 | 282 | 50 | 49 | 99 | | |
| Deaths, „ | | | 8 | 2 | | | 10 | 5 | | | 7 | 7 | | | 4 | 6 | | | 3 | 4 | | | 1 | 5 | | | 16 | 22 | | | 3 | 8 | | | 10 | 7 | | | 2 | 3 | | | 8 | 5 | | | 6 | 2 | | | 1 | 4 | | | 2 | 5 | | | 2 | 4 | | | 4 | 2 | | | 142 | 140 | 282 | 50 | 49 | 99 |
| Notifications, 1939 | 1 | 2 | | | 25 | 18 | | | 21 | 14 | | | 14 | 17 | | | 16 | 27 | | | 11 | 16 | | | 19 | 15 | | | 4 | 6 | | | 11 | 11 | | | 2 | 4 | | | 5 | 8 | | | 5 | — | | | 5 | 4 | | | 8 | 1 | | | 4 | 1 | | | 3 | 2 | | | 132 | 133 | 265 | 52 | 48 | 100 | | |
| Deaths, „ | | | — | 3 | | | 12 | 11 | | | 7 | 2 | | | 2 | 3 | | | 5 | 8 | | | 4 | 8 | | | 19 | 15 | | | 4 | 6 | | | 11 | 11 | | | 2 | 4 | | | 5 | 8 | | | 5 | — | | | 5 | 4 | | | 8 | 1 | | | 4 | 1 | | | 3 | 2 | | | 132 | 133 | 265 | 52 | 48 | 100 |
| Notifications, 1940 | — | 2 | | | 16 | 12 | | | 24 | 18 | | | 13 | 13 | | | 19 | 21 | | | 9 | 17 | | | 16 | 14 | | | 7 | 4 | | | 8 | 8 | | | 3 | 2 | | | 9 | 7 | | | 6 | 3 | | | 5 | 2 | | | — | 2 | | | 1 | 5 | | | 3 | 1 | | | 120 | 119 | 239 | 47 | 44 | 91 | | |
| Deaths, „ | | | 1 | 2 | | | 11 | 10 | | | 4 | 6 | | | 2 | 1 | | | 7 | 7 | | | 3 | 6 | | | 16 | 14 | | | 7 | 4 | | | 8 | 8 | | | 3 | 2 | | | 9 | 7 | | | 6 | 3 | | | 5 | 2 | | | — | 2 | | | 1 | 5 | | | 3 | 1 | | | 120 | 119 | 239 | 47 | 44 | 91 |
| Notifications, 1941 | 3 | — | | | 24 | 22 | | | 18 | 19 | | | 16 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



TABLE 5.

Primary Notifications—Respiratory Tuberculosis, 1951.
Age Incidence and Classification of cases seen by Chest Physicians.
Ministry of Health Circular 83/47 (1).

Males.

| Age Group | Respiratory A | | | | Respiratory B | | | | Total cases seen by Chest Physicians | Cases not classified for various reasons (2) | Total primary notifications |
|------------------|---------------|------|-----|-------|---------------|------|------|-------|--------------------------------------|--|-----------------------------|
| | 1 | 2 | 3 | Total | 1 | 2 | 3 | Total | | | |
| Under 1 yr. | 1 | 2 | 3 | 6 | — | — | — | — | 6 | — | 6 |
| 1-2 yrs. | 4 | 1 | — | 5 | — | — | — | — | 5 | — | 5 |
| 3-4 yrs. | 6 | 2 | 1 | 9 | — | 1 | 2 | 3 | 12 | 1 | 13 |
| 5-9 yrs. | 6 | 3 | — | 9 | — | — | 1 | 1 | 10 | 2 | 12 |
| 10-14 yrs. | 6 | 7 | — | 13 | — | 2 | — | 2 | 15 | 1 | 16 |
| 15-19 yrs. | 10 | 9 | 2 | 21 | 3 | 8 | 2 | 13 | 34 | 1 | 35 |
| 20-24 yrs. | 9 | 7 | — | 16 | 1 | 23 | 2 | 26 | 42 | 3 | 45 |
| 25-34 yrs. | 11 | 12 | 2 | 25 | 4 | 41 | 12 | 57 | 82 | 3 | 85 |
| 35-44 yrs. | 3 | 9 | 2 | 14 | 1 | 31 | 9 | 41 | 55 | 3 | 58 |
| 45-54 yrs. | 3 | 9 | 3 | 15 | — | 32 | 19 | 51 | 66 | 9 | 75 |
| 55-64 yrs. | 1 | 5 | 1 | 7 | — | 16 | 11 | 27 | 34 | 5 | 39 |
| 65 yrs. and over | 1 | 2 | — | 3 | — | 5 | 6 | 11 | 14 | 3 | 17 |
| Totals | 61 | 68 | 14 | 143 | 9 | 159 | 64 | 232 | 375 | 31 | 406 |
| % 1951 | 16.3 | 18.1 | 3.7 | 38.1 | 2.4 | 42.4 | 17.1 | 61.9 | 100% | | |
| % 1950 | 22.9 | 18.6 | 3.5 | 45.0 | 2.3 | 33.6 | 19.1 | 55.0 | 100% | | |

Females.

| | | | | | | | | | | | |
|------------------|------|------|-----|------|-----|------|------|------|------|----|-----|
| Under 1 yr. | — | — | 1 | 1 | — | 1 | 1 | 2 | 3 | 2 | 5 |
| 1-2 yrs. | 1 | 2 | 2 | 5 | — | 2 | — | 2 | 7 | — | 7 |
| 3-4 yrs. | 8 | 4 | 1 | 13 | — | — | — | — | 13 | — | 13 |
| 5-9 yrs. | 4 | 4 | — | 8 | — | — | 1 | 1 | 9 | — | 9 |
| 10-14 yrs. | 5 | 5 | — | 10 | — | 1 | — | 1 | 11 | — | 11 |
| 15-19 yrs. | 5 | 14 | 1 | 20 | 3 | 18 | 6 | 27 | 47 | 2 | 49 |
| 20-24 yrs. | 12 | 16 | 1 | 29 | 1 | 29 | 9 | 39 | 68 | 1 | 69 |
| 25-34 yrs. | 8 | 7 | 2 | 17 | — | 41 | 14 | 55 | 72 | 5 | 77 |
| 35-44 yrs. | 2 | 5 | — | 7 | 1 | 19 | 1 | 21 | 28 | 3 | 31 |
| 45-54 yrs. | 2 | 5 | 1 | 8 | — | 10 | 3 | 13 | 21 | 2 | 23 |
| 55-64 yrs. | — | 3 | — | 3 | — | 4 | — | 4 | 7 | 2 | 9 |
| 65 yrs. and over | — | — | — | — | — | 1 | — | 1 | 1 | 1 | 2 |
| Totals | 47 | 65 | 9 | 121 | 5 | 126 | 35 | 166 | 287 | 18 | 305 |
| % 1951 | 16.4 | 22.6 | 3.1 | 42.2 | 1.7 | 43.9 | 12.2 | 57.8 | 100% | | |
| % 1950 | 26.8 | 17.9 | 5.1 | 49.8 | 2.4 | 28.2 | 19.6 | 50.2 | 100% | | |

CLASSIFICATION TABLE—NOTES.

- 1) CLASS A.—Cases in which tubercle bacilli have never been discovered in any exudate, excrement, discharge or tissue.
 CLASS B.—Cases in which tubercle bacilli have been found at any time in any exudate, excrement, discharge or tissue.
 GROUP 1.—Cases with slight constitutional disturbance.
 GROUP 3.—Cases with profound systematic disturbance or constitutional deterioration and with marked impairment of function, either local or general.
 GROUP 2.—All cases which cannot be placed in Groups 1 and 3.
- 2) In this column are included cases (a) where death occurred immediately after notification and before the Chest Physician had opportunity to see the patient; (b) Service cases; (c) cases in mental hospitals, etc., etc.

TABLE 7.

Sources of Notification of Tuberculosis During 1951.

| Source | Respiratory | Non-Respiratory | Totals |
|-------------------------------|-------------|-----------------|--------|
| Private Practitioners | 354 | 12 | 366 |
| Chest Clinic Staff | 100 | 8 | 108 |
| General Hospitals | 218 | 79 | 297 |
| Mental Hospitals | 12 | 1 | 13 |
| Sanatoria | 7 | 3 | 10 |
| H.M. Forces | 18 | — | 18 |
| Other Sources | 2 | 2 | 4 |
| Total | 711 | 105 | 816 |

TABLE 8.

TUBERCULOSIS.

Primary Notifications and Deaths—1951.

Classification in Municipal Wards.

| Ward | Estimated population | Persons per acre | NOTIFICATIONS | | | | | | DEATHS (all forms) | |
|---------------------------|----------------------|------------------|---------------|-----|-----------------|----|-----------------|---------------------|--------------------------|---------------------|
| | | | Respiratory | | Non-respiratory | | Total all forms | Rate per 1,000 pop. | No. (Manchester figures) | Rate per 1,000 pop. |
| | | | M. | F. | M. | F. | | | | |
| Alexandra Park.. .. . | 21,750 | 27.88 | 13 | 7 | 1 | 2 | 23 | 1.06 | 10 | 0.46 |
| All Saints' | 19,244 | 61.09 | 17 | 11 | 1 | 2 | 31 | 1.61 | 17 | 0.88 |
| Ardwick | 18,390 | 42.18 | 13 | 12 | 3 | 7 | 35 | 1.90 | 12 | 0.65 |
| Barlow Moor | 15,475 | 13.82 | 3 | 4 | 1 | 1 | 9 | 0.58 | 6 | 0.39 |
| Beswick | 20,142 | 82.89 | 17 | 5 | 1 | — | 23 | 1.14 | 12 | 0.60 |
| Blackley | 20,523 | 16.74 | 13 | 8 | 2 | 2 | 25 | 1.22 | 8 | 0.39 |
| Bradford | 23,543 | 30.50 | 14 | 10 | 4 | — | 28 | 1.19 | 15 | 0.64 |
| Burnage | 22,646 | 30.73 | 15 | 8 | — | 5 | 28 | 1.24 | 9 | 0.40 |
| Cheetham | 14,648 | 32.84 | 10 | 5 | 1 | — | 16 | 1.09 | 6 | 0.41 |
| Chorlton-cum-Hardy.. .. . | 20,606 | 24.27 | 9 | 3 | — | — | 12 | 0.58 | 9 | 0.44 |
| Collegiate Church | 14,350 | 28.64 | 13 | 7 | — | — | 20 | 1.39 | 13 | 0.91 |
| Crumpsall | 22,371 | 12.39 | 7 | 6 | — | — | 13 | 0.58 | 3 | 0.13 |
| Didsbury | 17,168 | 14.53 | 5 | 3 | — | 1 | 9 | 0.52 | 1 | 0.06 |
| Gorton North | 23,511 | 43.54 | 11 | 12 | 2 | 1 | 26 | 1.11 | 10 | 0.42 |
| Gorton South | 18,075 | 28.65 | 6 | 8 | 2 | 3 | 19 | 1.05 | 7 | 0.39 |
| Harpurhey | 19,101 | 51.35 | 17 | 8 | — | 3 | 28 | 1.47 | 11 | 0.58 |
| Levenshulme | 20,067 | 33.11 | 11 | 6 | — | 2 | 19 | 0.95 | 9 | 0.45 |
| Lightbowne | 20,849 | 53.46 | 11 | 6 | — | 1 | 18 | 0.86 | 14 | 0.67 |
| Longsight | 16,300 | 45.92 | 8 | 4 | 1 | 2 | 15 | 0.92 | 7 | 0.43 |
| Miles Platting | 15,375 | 34.63 | 4 | 6 | 2 | 1 | 13 | 0.84 | 7 | 0.45 |
| Moss Side East | 19,533 | 70.52 | 14 | 9 | 2 | 1 | 26 | 1.33 | 9 | 0.46 |
| Moss Side West | 19,212 | 71.69 | 13 | 11 | — | 4 | 28 | 1.46 | 9 | 0.47 |
| Moston | 20,668 | 17.66 | 11 | 7 | 1 | 1 | 20 | 0.97 | 5 | 0.24 |
| New Cross | 14,977 | 42.31 | 12 | 14 | 1 | 2 | 29 | 1.94 | 17 | 1.13 |
| Newton Heath | 19,729 | 21.80 | 5 | 8 | 3 | — | 16 | 0.81 | 11 | 0.56 |
| Newtown | 20,425 | 41.01 | 13 | 18 | 2 | 3 | 36 | 1.76 | 18 | 0.88 |
| Northenden | 18,711 | 8.39 | 12 | 4 | 1 | 2 | 19 | 1.01 | 8 | 0.43 |
| Old Moat | 17,212 | 27.58 | 9 | 4 | — | — | 13 | 0.75 | 6 | 0.35 |
| Openshaw | 23,422 | 43.13 | 11 | 12 | — | 2 | 25 | 1.07 | 8 | 0.34 |
| Rusholme | 17,457 | 24.04 | 9 | 14 | 1 | 1 | 25 | 1.43 | 9 | 0.51 |
| St. George's | 19,958 | 62.76 | 16 | 13 | — | 2 | 31 | 1.55 | 9 | 0.45 |
| St. Luke's | 18,858 | 65.71 | 11 | 10 | 4 | 3 | 28 | 1.48 | 17 | 0.90 |
| St. Mark's | 21,662 | 41.90 | 15 | 11 | 2 | 3 | 31 | 1.43 | 11 | 0.51 |
| St. Peter's | 11,857 | 14.17 | 8 | 4 | 1 | 1 | 14 | 1.18 | 6 | 0.51 |
| Withington | 15,387 | 27.48 | 6 | 3 | — | 1 | 10 | 0.65 | 1 | 0.06 |
| Wythenshawe | 36,698 | 10.82 | 23 | 24 | 2 | 4 | 53 | 1.44 | 27 | 0.74 |
| Unclassified | — | — | 1 | — | 1 | — | 2 | — | — | — |
| CITY OF MANCHESTER .. | 699,900 | 25.68 | 406 | 305 | 42 | 63 | 816 | 1.17 | 357 | 0.51 |

TABLE 9.

Primary Notifications Respiratory Tuberculosis—1951.
Occupation and Social Classification.*

| MALES | | | | | OCCUPATIONAL GROUP | | | | | | | | | | SINGLE WOMEN | | | | | MARRIED WOMEN | | | | | Total Women | Total Both Sexes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Social Class | | | | | Total | Social Class | | | | | Total | Social Class | | | | | Total | Total Women | Total Both Sexes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| — | — | — | — | — | Fishermen | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

* Based on the 1931 classification of occupations and social groups used by the Registrar General.

The following table gives the case load for each of the 36 wards in the City :—

TABLE 10.
CASES ON NOTIFICATION REGISTER
(At January, 1952).

| City Ward | Respiratory | | Total | Non-respiratory | | Total | Grand total |
|--------------------------|-------------|-----------|-------|-----------------|-----------|-------|-------------|
| | Active | In-active | | Active | In-active | | |
| Alexandra Park | 76 | 36 | 112 | 16 | 21 | 37 | 149 |
| All Saints' | 80 | 30 | 110 | 19 | 19 | 38 | 148 |
| Ardwick | 78 | 34 | 112 | 21 | 16 | 37 | 149 |
| Barlow Moor | 54 | 33 | 87 | 8 | 6 | 14 | 101 |
| Beswick | 60 | 29 | 89 | 14 | 6 | 20 | 109 |
| Blackley | 81 | 29 | 110 | 16 | 11 | 27 | 137 |
| Bradford | 70 | 52 | 122 | 14 | 10 | 24 | 146 |
| Burnage | 77 | 45 | 122 | 18 | 15 | 33 | 155 |
| Cheetham | 71 | 25 | 96 | 10 | 5 | 15 | 111 |
| Chorlton-cum-Hardy | 56 | 28 | 84 | 5 | 7 | 12 | 96 |
| Collegiate Church | 74 | 26 | 100 | 6 | 9 | 15 | 115 |
| Crumpsall | 66 | 37 | 103 | 9 | 9 | 18 | 121 |
| Didsbury | 47 | 17 | 64 | 5 | 6 | 11 | 75 |
| Gorton North | 85 | 30 | 115 | 17 | 12 | 29 | 144 |
| Gorton South | 62 | 44 | 106 | 15 | 11 | 26 | 132 |
| Harpurhey | 77 | 25 | 102 | 9 | 11 | 20 | 122 |
| Levenshulme | 66 | 19 | 85 | 19 | 12 | 31 | 116 |
| Lightbowne | 68 | 23 | 91 | 11 | 9 | 20 | 111 |
| Longsight | 61 | 33 | 94 | 11 | 6 | 17 | 111 |
| Miles Platting.. .. . | 52 | 21 | 73 | 8 | 9 | 17 | 90 |
| Moss Side East | 80 | 50 | 130 | 17 | 20 | 37 | 167 |
| Moss Side West | 92 | 25 | 117 | 19 | 9 | 28 | 145 |
| Moston | 85 | 48 | 133 | 12 | 8 | 20 | 153 |
| New Cross | 77 | 30 | 107 | 11 | 5 | 16 | 123 |
| Newton Heath | 62 | 38 | 100 | 12 | 7 | 19 | 119 |
| Newtown.. .. . | 91 | 33 | 124 | 16 | 16 | 32 | 156 |
| Northenden | 131 | 57 | 188 | 18 | 14 | 32 | 220 |
| Old Moat.. .. . | 86 | 44 | 130 | 10 | 14 | 24 | 154 |
| Openshaw | 91 | 43 | 134 | 15 | 10 | 25 | 159 |
| Rusholme | 59 | 31 | 90 | 14 | 10 | 24 | 114 |
| St. George's | 84 | 26 | 110 | 24 | 10 | 34 | 144 |
| St. Luke's | 93 | 31 | 124 | 16 | 12 | 28 | 152 |
| St. Mark's | 92 | 44 | 136 | 12 | 17 | 29 | 165 |
| St. Peter's | 43 | 14 | 57 | 4 | 5 | 9 | 66 |
| Withington | 42 | 24 | 66 | 6 | 6 | 12 | 78 |
| Wythenshawe.. .. . | 414 | 184 | 598 | 48 | 39 | 87 | 685 |
| Totals | 2,983 | 1,338 | 4,321 | 505 | 412 | 917 | 5,238 |

TABLE 11.—Return showing the work of the Clinic during 1951.

| Diagnosis | Respiratory | | | | Non-respiratory | | | | Total | | | | Grand total | |
|---|-------------|------|----------|-----|-----------------|-----|----------|----|--------|------|----------|-----|-------------|--|
| | Adults | | Children | | Adults | | Children | | Adults | | Children | | | |
| | | | | | | | | | | | | | | |
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | | |
| A.—New cases examined during the year (excluding contacts)— | | | | | | | | | | | | | | |
| (a) Definitely tuberculous | 326 | 233 | 46 | 21 | 27 | 37 | 15 | 16 | 353 | 270 | 61 | 37 | 721 | |
| (b) Diagnosis not completed | .. | .. | .. | .. | .. | .. | .. | .. | 523 | 383 | 92 | 71 | 1069 | |
| (c) Non-tuberculous | .. | .. | .. | .. | .. | .. | .. | .. | 2556 | 2384 | 471 | 428 | 5839 | |
| B.—Contacts examined during the year— | | | | | | | | | | | | | | |
| (a) Definitely tuberculous | 14 | 13 | 17 | 16 | 1 | .. | .. | 1 | 15 | 13 | 17 | 17 | 62 | |
| (b) Diagnosis not completed | .. | .. | .. | .. | .. | .. | .. | .. | 46 | 66 | 145 | 127 | 384 | |
| (c) Non-tuberculous | .. | .. | .. | .. | .. | .. | .. | .. | 451 | 646 | 436 | 356 | 1889 | |
| C.—Cases written off the Clinic Register as— | | | | | | | | | | | | | | |
| (a) Recovered | 206 | 189 | 16 | 12 | 89 | 106 | 17 | 15 | 295 | 295 | 33 | 27 | 650 | |
| (b) Non-tuberculous | .. | .. | .. | .. | .. | .. | .. | .. | 3007 | 3030 | 907 | 784 | 7728 | |
| D.—Number of persons on Clinic Register on December 31st— | | | | | | | | | | | | | | |
| (a) Definitely tuberculous | 2193 | 1771 | 220 | 168 | 311 | 377 | 146 | 86 | 2504 | 2148 | 366 | 254 | 5272 | |
| (b) Diagnosis not completed | .. | .. | .. | .. | .. | .. | .. | .. | 569 | 449 | 237 | 198 | 1453 | |

Cases of tuberculosis who received treatment from the Clinic 281

Attendances at the Clinic 28,372

X-ray examinations 16,846

MATERNAL AND CHILD HEALTH SERVICES.

By Dr. Winifred Alma Kane, Senior Assistant Medical Officer of Health
(Maternity and Child Welfare).

STAFF.

Medical—

Winifred Alma Kane, M.R.C.S., L.R.C.P., D.P.H. Senior Assistant Medical Officer of Health (Maternity and Child Welfare)

Muriel J. Brayshay, M.B., CH.B.
 Alice I. Burke, M.B., CH.B., D.P.H.
 Annie M. Dawson, B.SC., M.B., CH.B., D.C.H.,
 D.O.
 Florence M. Duckworth, M.B., CH.B.
 Greta Humble, M.B., CH.B. (resigned 15th
 March, 1951)
 Rosaline Howat, M.B., CH.B.
 Gwendoline M. E. Keevil, M.B., B.S., D.C.H.
 Constance G. Lee, M.B., CH.B., M.R.C.S.,
 L.R.C.P., D.OBST. R.C.O.G. (resigned
 13th January, 1951)
 Margaret T. McCaffrey, M.B., B.CH., B.A.O.,
 L.M., D.C.H., D.P.H.
 Lydia McMurdo, L.R.C.S., L.R.C.P.
 Helen E. Mair, M.B., CH.B.
 Barbara J. Nathan, M.B., B.CH., M.A.,
 D.OBST., R.C.O.G.
 Margaret E. Pilsworth, B.A., M.B., B.CH.,
 B.A.O. (resigned 21st July, 1951)
 Roberta Aitchison Stewart, M.B., CH.B.,
 D.OBST. R.C.O.G. (appointed 19th March,
 1951)
 Dorothy Elizabeth Margaret Thomas, M.B.,
 CH.B., D.OBST. R.C.O.G. (appointed 15th
 January, 1951)

Assistant Medical Officers.

Nursing—

Eileen A. Lamb, S.R.N., S.C.M., M.T. DIPLOMA—Non-Medical Supervisor of Midwives.
 Evelyn L. Gowing, S.R.N., S.C.M. Health
 Visitor's Certificate Superintendent of Health Visitors.

The Midwifery Service.

The City Council's arrangements for a midwifery service under section 23 of the National Health Service Act, 1946, comprise:—

- (a) Midwives employed by the local health authority,
- (b) Midwives employed on an agency basis.

As regards (b) the City Council has agreements with the Board of Governors of the United Manchester Hospitals (St. Mary's Hospital Extern Service) and with the Manchester and Salford District Nursing Institution.

During 1951 notice of intention to practise was received from 245 midwives and 6 maternity nurses.

This number includes the following:—

| | |
|---|-----|
| Municipal midwives | 79 |
| Queen's District midwives | 12 |
| St. Mary's District midwives | 14 |
| Independent midwives | 4 |
| Midwives and Maternity Nurses employed in nursing homes having no resident medical officer | 20 |
| Midwives employed in hospitals | 116 |
| Maternity nurses | 6 |

Attendances at Domiciliary Births.

| Municipal Midwives and Midwives acting as Maternity Nurses | Queen's District Midwives | St. Mary's District Midwives | Independent Midwives | Maternity Nurses | Total |
|--|---------------------------|------------------------------|----------------------|------------------|-------|
| 4,097 | 233 | 806 | 54 | 4 | 5,194 |

Attendances at Births in Institutions.

| | |
|---|-------|
| (a) In nursing homes | 891 |
| (b) In hospitals under Hospital Management Committee or Board of Governors under the National Health Service Act.. | 6,721 |

Analysis of Domiciliary Cases taken by Midwives.

| | Midwife only at the case | Midwife with doctor called in | Midwife as maternity nurse | Total cases |
|--|--------------------------|-------------------------------|----------------------------|-------------|
| (a) Municipal midwives | 2,767 | 619 | 711 | 4,097 |
| (b) Queen's District midwives | 114 | 6 | 113 | 233 |
| (c) St. Mary's District midwives | 718 | 88 | — | 806 |
| (d) Independent midwives .. | 16 | 16 | 22 | 54 |
| (e) Maternity nurses | — | — | 4 | 4 |
| Total | 3,615 | 729 | 850 | 5,194 |

Supervision of Midwives.

The supervision and administration of the service is undertaken by a non-medical supervisor of midwives and two assistant non-medical supervisors.

For supervisory purposes the City is divided into two parts, the midwives resident in each part being immediately supervised by an assistant non-medical supervisor.

The work of 6 maternity nurses (for the nursing of cases of pyrexia or other unsatisfactory conditions), 3 premature baby nurses and 3 ophthalmic nurses is also arranged and supervised by the supervisor of midwives.

Record of visits paid by the Supervisors.

| | | | | | |
|---|----|----|----|----|-----|
| Routine inspections at the midwives' homes | .. | .. | .. | .. | 159 |
| Supervisory visits to confinements and nursings | .. | .. | .. | .. | 181 |
| Visits to ante- and post-natal clinics | .. | .. | .. | .. | 84 |
| Special visits to midwives, sickness, etc. | .. | .. | .. | .. | 47 |
| Puerperal pyrexia investigations | .. | .. | .. | .. | 98 |
| Maternal death investigations | .. | .. | .. | .. | 7 |
| Special investigations, patients' homes, etc. | .. | .. | .. | .. | 96 |
| Hospitals and nursing homes | .. | .. | .. | .. | 24 |
| To Coroner's and Magistrates' Courts | .. | .. | .. | .. | 2 |

Post-Graduate Instruction of Midwives.

A series of 6 post-graduate lectures were given in Manchester during the winter months. The average attendance at these lectures was 100 midwives.

Post-graduate courses were also arranged at various centres in the country and midwives were sent to these as follows :—

| | | | | | | | | | | | | |
|------------|----|----|----|----|----|----|----|----|----|----|----|------------|
| Bristol | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 midwives |
| Leeds | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 midwives |
| Oxford | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 midwives |
| Manchester | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 midwives |

A special 3-weeks course in the care of premature babies was instituted during the year; 20 midwives, 2 at a time, attended daily at the St. Mary's Hospital or Duchess of York premature baby units. It is intended to arrange for the whole of the midwifery staff to attend in due course.

Attendance at ante-natal exercise classes conducted by a physiotherapist was arranged for all the staff. This practical demonstration of relaxation exercises was assisted by a lecture on the subject.

Midwives approved as Part II Teachers.

23 midwives are approved by the Central Midwives Board for Part II district training of pupil midwives; 24 pupils were trained during the year.

Handywomen.

There were no infringements of the City of Manchester Prohibition of Unqualified Persons Order, 1939, which makes it an offence for an unqualified person to attend a woman in childbirth during the following 10 days for gain.

Central Midwives Board Rules.

No breach of the Rules was reported.

Municipal Midwifery Service.

There were 4,861 applications for municipal midwives ; 576 applications were cancelled, the reasons being :—

| | | | | |
|---|----|----|----|-----|
| (a) Transfers to hospitals on medical grounds | .. | .. | .. | 414 |
| (b) Miscarried | .. | .. | .. | 32 |
| (c) Left the district | .. | .. | .. | 52 |
| (d) Not pregnant | .. | .. | .. | 11 |
| (e) Unsuitable home conditions | .. | .. | .. | 12 |
| (f) Made other arrangements | .. | .. | .. | 55 |

Details of the midwives' work :—

| | | | | |
|---|----|----|----|-------|
| Total deliveries as midwife or maternity nurse | .. | .. | .. | 4,097 |
| Number of miscarriages attended | .. | .. | .. | 70 |
| Visits to patients discharged from hospital before the 10th day | .. | .. | .. | 3,309 |
| Home investigations | .. | .. | .. | 1,451 |
| Attendance of midwives at Ante-natal Clinics | .. | .. | .. | 2,922 |
| Attendance of midwives at Post-natal Clinics | .. | .. | .. | 421 |

Clinics.

Midwives hold Ante-Natal Clinics at 22 of the Municipal Welfare Centres ; 18 of these are combined sessions, at which a doctor is available if required.

5 combined ante-natal and post-natal sessions and 2 post-natal only sessions are held at the Centres, at each of which a midwife is present to assist.

Requests for Medical Aid.

During the year 2,409 requests for medical aid were issued. Below is a table indicating from which source these aids were sought :—

| | Municipal Midwives | | Queen's District Midwives | | St. Mary's District Midwives | Independent Midwives | | Midwives in Maternity Homes having no Resident Medical Officer | | Total |
|-----------------------|--------------------|----------------|---------------------------|----------------|------------------------------|----------------------|----------------|--|----------------|-------|
| | Midwife only | Doctor engaged | Midwife only | Doctor engaged | Doctor engaged | Midwife only | Doctor engaged | Midwife only | Doctor engaged | |
| A. Mother— | | | | | | | | | | |
| (1) During labour | 619 | 398 | 6 | .. | 88 | 1 | 2 | .. | 95 | 1,209 |
| (2) During puerperium | 154 | 133 | 3 | .. | 24 | 2 | .. | .. | 8 | 324 |
| B. Ante-Natal | 181 | 56 | 1 | .. | 3 | 3 | .. | .. | 3 | 247 |
| C. Child | 254 | 330 | 4 | .. | 16 | 3 | 3 | .. | 19 | 629 |
| Totals | 1,208 | 917 | 14 | .. | 131 | 9 | 5 | .. | 125 | 2,409 |

Artificial Feeding.

464 notifications of recourse to artificial feeding were received, 92 from midwives and 317 from institutions.

Gas and Air Analgesia.

67 midwives are trained to administer gas and air analgesia, all of whom have been supplied with machines.

3,362 patients availed themselves of the facility,

Administration of Pethedine

The number of patients to whom pethedine was administered is shown in the following table :—

| Municipal Midwives | | St. Mary's District Midwives | | Queen's District Midwives | | Total |
|--------------------|-----------------|------------------------------|-----------------|---------------------------|-----------------|-------|
| Midwife | Maternity Nurse | Midwife | Maternity Nurse | Midwife | Maternity Nurse | |
| 750 | 728 | 319 | .. .. . | 15 | 8 | 1,820 |

Transport.

39 midwives possess their own cars and 1 has a motor cycle. For those midwives who do not own their own cars, transport is available day or night on application to a central depot.

Puerperal Pyrexia.

269 cases of puerperal pyrexia were notified during 1951, the rate per 1,000 total births being 21.09.

This shows a decrease when compared with 1950, the rate per 1,000 births in that year being 23.42.

206 cases were investigated in the patients' own homes.

Classification of notified cases of Pyrexia.

| Notified cases—269 | Abortion | Deaths from abortion | Full term and premature labour | Deaths |
|--------------------|------------------|----------------------|--------------------------------|--------|
| Puerperal Sepsis— | 2—3 months .. 34 | — | Normal labour .. 53 | 1 |
| | 3—4 .. 28 | | Abnormal labour .. 14 | |
| | 4 plus .. 14 | | — | |
| 196 | Unstated .. 53 | | 67 | |
| | — | | Of these— | |
| | 129 | | Full-term .. 61 | |
| | — | | Premature .. 6 | |
| | | | — | |
| | | | 67 | |
| | | | — | |
| Puerperal Pyrexia— | — | — | Normal labour .. 64 | — |
| | | | Abnormal labour .. 9 | |
| | | | — | |
| 73 | | | 73 | |
| | | | Of these— | |
| | | | Full-term .. 63 | |
| | | | Premature .. 10 | |
| | | | — | |
| | | | 73 | |
| | | | — | |

Incidence of Pyrexia.

| | Municipal Midwives | Midwives as Maternity Nurses | St. Mary's District Midwives | Queen's District Midwives | Inde- pendent Midwives | Insti- tutions | General Practi- tioners— no nursing attendance | Totals |
|---|-----------------------|---------------------------------------|------------------------------------|---------------------------------|------------------------------|-------------------|--|--------|
| A. (1) Infection of genital tract | 18 | 9 | 10 | 1 | — | 29 | — | 67 |
| (2) Abortions | — | — | — | — | — | — | 129 | 129 |
| B. Extra genital causes.. | 10 | 10 | 3 | 1 | — | 26 | — | 50 |
| C. Unclassified | 2 | 4 | 3 | — | — | 14 | — | 23 |
| Totals | 30 | 23 | 16 | 2 | — | 69 | 129 | 269 |

The causes are as follows :—

A. (1) Infection of the genital tract—

| | |
|---|-------------|
| Uterine infection | 50 (1 died) |
| Phlegmasia alba dolens | 3 |
| Thrombo-phlebitis.. .. . | 4 |
| Retained products of conception | 5 |
| Pelvic cellulitis | 2 |
| Pelvic peritonitis | 1 |
| Subphrenic abscess | 1 |
| Pulmonary embolism | 1 |
| | — 67 |

(2) Abortions 129

B. Extra genital causes—

| | |
|-------------------------------|------|
| Pneumonia | 4 |
| Urinary infection | 6 |
| Mastitis | 14 |
| Respiratory infection | 5 |
| Coryza | 1 |
| Anaemia | 4 |
| Endocarditis | 1 |
| Influenza | 7 |
| Tuberculosis | 2 |
| Pyelitis | 3 |
| Sensitivity rash | 1 |
| Birth injury | 1 |
| Mumps | 1 |
| | — 50 |

C. Unclassified 23

Total 269

Maternal Deaths.

19 deaths occurred during 1951 which were directly attributable to child-birth ; 5 others were due to associated causes.

| Cause | Normal full term labour | Abnormal full term labour | Abortions and premature labour | Total | Rate per 1,000 Registered live and still births | |
|------------------------|-------------------------|---------------------------|--------------------------------|-------|---|--------------|
| Puerperal Sepsis | — | 3 | 1 + 1 undelivered | 5 | 1950 0·08 | 1951 0·39 |
| Others | 2 | 2 | 10 | 14 | 0·70 | 1·10 |
| | | | | 19 | 0·78 | 1·49 |

This shows an increase over last year, the rate then being 0·78.
Analysis of deaths due to other causes than sepsis :—

| | |
|---|----|
| 1 (a) Shock ; (b) acute inversion of the uterus ; (c) normal delivery | 1 |
| 1 (a) Cardiac muscle failure ; (b) hypertension ; (c) toxæmia of pregnancy | 1 |
| 1 (a) Right ventricular failure ; (b) kypho-scoliosis ; (c) Toxæmia of pregnancy. P.M. | 1 |
| 1 (a) Cortical venous thrombosis. 2—Puerperal pyrexia .. | 1 |
| 1 (a) Hyperemesis gravidarum. 2—Chronic rheumatic heart disease. Mitral stenosis | 1 |
| 1 (a) Secondary hepatic necrosis ; (b) toxæmia of pregnancy | 1 |
| Shock. Injection of fluid into uterus. Attempted self-abortion | 3 |
| 1(a) Acute dilation of stomach ; (b) ante-partum hæmorrhage (placenta prævia). 2—Mitral stenosis | 1 |
| 1(a) Accidental hæmorrhage ; (b) toxæmia of pregnancy. P.M. | 1 |
| 1(a) Post partum eclampsia. 2—Pregnancy | 1 |
| 1. Cerebral thrombosis with right lateral sinus thrombosis. Embolus from thrombosed para-uterine veins (right). 2—Eclampsia ; 32 weeks pregnant | 1 |
| 1(a) Pulmonary embolus ; (b) Caesarian section. 2—Ulcerative colitis | 1 |
| | — |
| | 14 |
| | — |

Analysis of 5 deaths associated with pregnancy :—

| | |
|---|---|
| 1(a) Pulmonary oedema ; (b) Mitral stenosis. 2—Pregnancy.. | 1 |
| 1(a) Congestive heart failure ; (b) Rheumatic carditis. 2—Pregnancy | 1 |
| 1(a) Uraemia ; (b) chronic nephritis. 2—Pregnancy delivered 26 days | 1 |
| 1(a) Haemoptysis ; (b) ventricular failure ; (c) mitral stenosis. 2—Pregnant | 1 |
| 1(a) Cerebral hæmorrhage ; (b) rupture of aneurysm of middle cerebral artery following Caesarian section for hypertension of pregnancy.. .. . | 1 |
| | — |
| | 5 |
| | — |

In addition there were 3 deaths in Manchester where the home addresses were outside the City.

Attendant at Confinement when Mother subsequently died.

| Cause | Municipal Midwives | Midwives as Maternity Nurses | St. Mary's District Midwives | Queen's District Midwives | Institutions | No attendant :— | | Total |
|--------------|--------------------|------------------------------|------------------------------|---------------------------|--------------|-----------------|-------------|-------|
| | | | | | | Abortions | Undelivered | |
| Sepsis | 1 | — | — | — | 2 | 1 | 1 | 5 |
| Others | — | 1 | — | — | 10 | 3 | — | 14 |
| Total | 1 | 1 | — | — | 12 | 4 | 1 | 19 |

Pemphigus Neonatorum.

There were 2 cases of pemphigus neonatorum notified during the year. This is a decrease compared with 1950, when 10 cases were notified.

One case occurred in the practice of a municipal midwife and was admitted to Monsall Hospital. The other case occurred in an institution and was visited and nursed by the maternity nurse on discharge.

Unnotified Cases of Skin Eruptions.

25 cases of skin infection occurred which were not notified as pemphigus, but were visited and nursed by the maternity nurses.

Table showing where Infection occurred.

| Municipal Midwives | Midwives as Maternity Nurses | Queen's District Midwives | St. Mary's District Midwives | Independent Midwives | Institutions | Total |
|--------------------|------------------------------|---------------------------|------------------------------|----------------------|--------------|-------|
| 13 | 2 | — | 1 | — | 9 | 25 |

This is a decrease of 9 compared with the number of cases of skin infection needing special nursing last year. No deaths occurred due to this cause during 1951.

*Stillbirths.***Incidence of Stillbirths.**

| Registered Stillbirths | Notified Stillbirths | Municipal Midwives | Midwives as Maternity Nurses | Queen's District Midwives | St. Mary's District Midwives | Independent Midwives | Institutions | Percentage of registered stillbirths in relation to total births |
|------------------------|----------------------|--------------------|------------------------------|---------------------------|------------------------------|----------------------|--------------|--|
| 319 | * 381 | 45 | 10 | 3 | 17 | 2 | 304 | 2.50 |

* Included in this figure are 61 cases where the mother's address was outside the City.

The percentage of registered stillbirths in relation to total births shows a decrease of 0.11, the percentage for 1950 being 2.61.

The Work of the Maternity Nurses.

6 maternity nurses are employed for the care of cases of pyrexia or other conditions considered unsatisfactory for the midwife to attend,

Summary of Visits paid by the Maternity Nurses.

| Diagnosis | Number of Visits |
|--|------------------|
| Notified cases of puerperal pyrexia (nursings) | 458 |
| Raised temperature (not notifiable) | 2,135 |
| Abortion | 350 |
| Unsatisfactory condition of mother | 579 |
| Infection in the home.. .. . | 46 |
| Unsatisfactory condition of the infant | 454 |
| Pemphigus neonatorum and other skin conditions | 303 |
| Premature infants | 410 |
| Ophthalmia neonatorum | 178 |
| Puerperal pyrexia and other special investigations | 205 |
| Maternal death investigations | 24 |
| Total | 5,142 |

Premature Babies.

3 specially trained nurses are employed for the care of premature infants in their own homes.

404 babies were referred to the Department. This is an increase of only 16 compared with 1950, though in that year the increase on the previous year amounted to 127.

Each baby is nursed until the weight is at least 7lb. and the baby's condition is satisfactory.

Source of reference of Premature Infants.

| Municipal Midwives | Queen's District Midwives | Salford District Midwives | St. Mary's District Midwives | Independent Midwives | Nursing Homes | Institutions | Total |
|--------------------|---------------------------|---------------------------|------------------------------|----------------------|---------------|--------------|-------|
| 75 | 2 | 1 | 2 | 1 | 27 | 296 | 404 |

The method of feeding the 404 infants concerned when the nurses ceased to attend was as follows: wholly breast-fed, 93; breast and complementary feeds, 70; artificial feeding, 241.

Neo-natal Mortality Rate of Premature Infants according to Birth Weight.

| Weight | Survived | Died | Total | Mortality Rate per cent |
|---------------------|----------|--|-------|-------------------------|
| Under 3 lb. | 4 | — | 4 | Nil |
| 3—4 lb. | 61 | 4 { 2 at 2 months } { 2 at 5 months } | 65 | 6.15 |
| 4—5 lb. | 170 | — | 170 | Nil |
| 5 lb. plus | 164 | 1 at 2 months | 165 | 0.61 |
| Total | 399 | 5 | 404 | |

Provision of Cots.

Specially prepared and heated cots are available for use in the home, on application by doctor or midwife. The cots were in use on 46 occasions during the year.

Ophthalmic Nurses.

3 ophthalmic trained nurses are employed for the care of all eye cases referred to the Department.

The condition known as retrolental fibroplasia which appears to be related to prematurity has caused the Department some concern. 6 cases, all born in 1950, were notified early in the year, and a further 21 cases occurred in 1951.

It is anticipated that there will be some premature babies born late in 1951 who will yet be notified as suffering from this condition of the eyes.

Cases of Ophthalmia Neonatorum and Conjunctivitis in Newly Born Infants and Eye Defects in older children.

| | Illegitimate | Legitimate | Total |
|---|--------------|------------|-------|
| 1. Ophthalmia neonatorum— | | | |
| (a) Notified by Medical Practitioners | 1 | 55 | 56 |
| (b) Notified by the Royal Eye Hospital .. | — | — | — |
| 2. Conjunctivitis in Newly-born— | | | |
| Reported by midwives : | | | |
| (a) Own cases | 3 | 341 | 344 |
| (b) Discharged from hospital before 14th day | 2 | 99 | 101 |
| 3. Conjunctivitis and other eye defects in children over 14 days— | | | |
| (a) Reported by Medical Officers of Child Welfare Centres | 3 | 111 | 114 |
| (b) Reported by Health Visitors | 6 | 248 | 254 |
| Total number of cases | 15 | 854 | 869 |

Place of treatment for cases of ophthalmia neonatorum and conjunctivitis in the newly born.

Number of cases attending Royal Eye Hospital—

| | |
|--|-----|
| (a) In-patients | 35 |
| (b) Out-patients | 45 |
| Number of cases attended by a private doctor | 789 |

Corneal infections.

| | |
|---------------------------|-----|
| (a) Under 14 days | Nil |
| (b) Over 14 days | 4 |

Swabs.

| | |
|-----------------------|----|
| Positive—G.C. | 3 |
| Negative | 35 |

Premature Babies, Still-births and Abortions.

The following tables give particulars as to the survival of premature infants born alive at home and in nursing homes and hospitals in the City during 1951.

Particulars are also given regarding still-births and abortions. Information concerning abortions at hospitals is not available.

Premature Infants (i.e. 5½lb. or less at birth, irrespective of period of gestation).

Number of premature live infants born at home whose period of gestation was :—

(a) 28 weeks and over 237 (b) Less than 28 weeks 9

Number of premature live infants born in private nursing homes whose period of gestation was :—

(a) 28 weeks and over 32 (b) Less than 28 weeks Nil

Number of premature live infants born in hospitals whose period of gestation was :—

(a) 28 weeks and over 608 (b) Less than 28 weeks 30

Still-births and Abortions.

Number of :—

(a) Still-births at home—

Over 5½lb. 37

5½lb. or less.. .. . 28

Still-births in private nursing homes—

Over 5½lb. 7

5½lb. or less.. .. . 4

Still-births in hospital—

Over 5½lb. 131

5½lb. or less.. .. . 155

(b) Abortions at home, of 18—28 weeks gestation .. 30

Abortions in private nursing homes, of 18—28 weeks gestation Nil

| Weights in lbs., oz., or grammes | Still-births and abortions (of 18—28 weeks gestation only) where the foetus was 5½lb. or less | | Premature infants born alive at home | | | | | | Trans- ferred to hospital | Premature infants born alive in private nursing homes | | | | | Still- births in hos- pitals where foetus was 5½ lb. or less | Premature infants born alive in hospitals | | | | |
|--|---|-----------------------|--------------------------------------|--------------------------------|------------------------------------|-------------------------------------|-----------------------------|-------|------------------------------------|--|------------------------------------|-------------------------------------|-----------------------------|-------|--|--|------------------------------------|-------------------------------------|-----------------------------|-------|
| | | | Trans- ferred to hospital | Nursed entirely at home | | | | | | Nursed entirely in private nursing home | | | | | | Died in first 24 hrs. | Died on 2nd to 7th day | Died on 8th to 28th day | Sur- vived 28 days | Total |
| | | | | Died in first 24 hrs. | Died on 2nd to 7th day | Died on 8th to 28th day | Sur- vived 28 days | Total | | Died in first 24 hrs. | Died on 2nd to 7th day | Died on 8th to 28th day | Sur- vived 28 days | Total | | | | | | |
| 2lb. 3oz. or less (1,000gm. or less) .. | Abor- tions 30 | Still- births 7 | 4 | 6 | — | — | 1 | 11 | — | — | — | — | — | — | 25 | 21 | 8 | — | — | 29 |
| Over 2lb. 3oz. up to and including 3lb. 4oz. (over 1,000gm. up to and including 1,500gm.) .. | — | 3 | 8 | 3 | 1 | — | 1 | 13 | — | — | — | — | — | — | 46 | 21 | 13 | 1 | 23 | 58 |
| Over 3lb. 4oz. up to and including 4lb. 6oz. (over 1,500gm. up to and including 2,000gm.) .. | — | 6 | 7 | 3 | 1 | — | 20 | 31 | — | — | — | — | 3 | 3 | 45 | 13 | 15 | 1 | 106 | 135 |
| Over 4lb. 6oz. up to and including 4lb. 15oz. (over 2,000gm. up to and including 2,250gm.) | — | 3 | — | — | 1 | — | 31 | 32 | — | — | — | — | 9 | 9 | 21 | 5 | 4 | — | 114 | 123 |
| Over 4lb. 15oz. up to and including 5lb. 8oz. (over 2,250gm. up to and including 2,500gm.) .. | — | 13 | 4 | 4 | 1 | 2 | 148 | 159 | — | — | — | — | 20 | 20 | 18 | 4 | 5 | 4 | 280 | 293 |
| Totals | 30 | 32 | 23 | 16 | 4 | 2 | 201 | 246 | — | — | — | — | 32 | 32 | 155 | 64 | 45 | 6 | 523 | 638 |

Summary of cases of ophthalmia neonatorum and conjunctivitis in the newly born.

| | |
|--|-----|
| Number discharged as recovered | 820 |
| Number discharged with damaged sight | — |
| Number died from any cause | 3 |
| Number removed from district | 1 |
| Number still under treatment at the end of the year .. | 45 |

Number of Visits by Ophthalmic Nurses.

| | | |
|--------------------|-------|------------------|
| Primary | 869 | } Total .. 6,218 |
| Subsequent | 5,349 | |

Analysis of Eye Conditions of Children over 14 days referred by Health Visitors and Child Welfare Centres.

| | Brought forward from 1950 | New cases in 1951 | Carried forward to 1952 |
|-----------------------------------|------------------------------|-------------------------|-------------------------------|
| Conjunctivitis (simple) | 4 | 277 | 5 |
| Conjunctivitis (purulent) | 2 | — | — |
| Lacrymal obstruction | 1 | 5 | — |
| Dacryocystitis | 1 | 4 | — |
| Blepharitis | — | 4 | — |
| Corneal ulcer | 1 | 2 | — |
| Corneal nebula | 5 | 2 | 5 |
| Coloboma | 3 | 2 | — |
| Cataract (congenital) | 8 | 1 | 7 |
| Cataract (traumatic) | — | 2 | 2 |
| Glioma | 1 | — | — |
| Defective vision | 11 | 6 | 12 |
| Microphthalmos | 3 | 1 | 4 |
| Pterigium | — | — | — |
| Mystagmus | 2 | — | — |
| Anophthalmos | 4 | 2 | 2 |
| Hordeoleum | — | 38 | — |
| Albino | — | — | — |
| Leukoma | 1 | 1 | 1 |
| Buphthalmos | 1 | — | 1 |
| Hazy cornæ | — | — | — |
| Corneal opacity | 1 | — | 1 |
| Retrolental fibroplasia | — | 23 | 23 |
| Ptosis | — | 1 | 1 |
| Proptosis (died 1951) | — | 1 | 1 |
| | 49 | 372 | 65 |

Welfare Centres.

At the end of 1951 there were 26 municipal welfare centres and 1 voluntary centre. The voluntary centre is held at the Holy Name School, the medical officer, health visitor and clerk being supplied by the Corporation. Other staff at this centre is provided by the Sisters of Charity of St. Vincent de Paul.

At the various centres there are 129 weekly medical consultations, comprising 61 infants, 22 toddlers, 3 sunlight, 41 ante-natal and 2 post-natal sessions. Post-natal examinations are also made at certain ante-natal sessions.

10 infant sessions are taken by health visitors only and 4 ante-natal sessions by midwives only.

At the end of the year there were on the centre registers :—

| | |
|----------------------------------|-----------------|
| 6,194 children under 1 year | } Total 17,809. |
| 4,374 children between 1—2 years | |
| 7,241 children between 2—5 years | |

154,328 attendances were made at the infant sessions.

| |
|---------------------------------------|
| 101,828 by children under 1 year. |
| 24,188 by children between 1—2 years. |
| 13,444 by children between 2—3 years. |
| 9,385 by children between 3—4 years. |
| 5,483 by children between 4—5 years. |

Toddlers Sessions.

These sessions are for children from 2—5 years of age and are proving very popular with the mothers. Appointments are made, thus avoiding unnecessary waiting of the mothers and congestion at centres. The children are invited by postcard and the appointments made by the Superintendent at the centre or by the health visitors on the districts. The attendances of children between the ages of 2—5 years has greatly increased during 1951.

Physiotherapy.

Physiotherapy is provided at 19 centres. 37 sessions are held each week, including 11 classes for remedial exercises for children from 2—5 years. The ailments treated are postural defects, minor deformities and general or local poor muscular tone.

Artificial Sunlight.

Treatment by ultra-violet light is given at Chorlton-on-Medlock, Cheetham, Newton Heath and Ardwick Centres. Owing to lack of physiotherapists, treatment at the Collyhurst Centre was discontinued early in 1951 and the sessions at the 4 remaining centres were reduced in number from 18 to 12. 9 adults and 659 children of whom 45 were under 1 year old, attended for treatment. The treatments given totalled 10,862.

The adults included expectant mothers suffering from various discomforts of pregnancy and post-natal debility and rheumatism. Children were treated for adenitis, boils, asthma, rickets, anaemia, malnutrition and spastic paralysis. 186 children ceased to attend before treatment was completed. All cases discharged were asked to attend for re-examination at a period of from 2—3 months after cessation of treatment and 80 per cent. kept their appointment. 21 were recommended to have a further course of treatment.

Cookery Classes.

Practical instruction in cookery is given at 5 welfare centres, where mothers are taught the value of food and preparation of meals.

“Make Do and Mend” Classes.

9 “Make do and Mend” classes were provided during 1951 for instruction and advice to the mothers in Collyhurst, Withington, Northenden, Hulme, Rusholme, Cheetham, Newall Green, Levenshulme and Newton Heath districts.

Voluntary Workers.

45 voluntary helpers give useful assistance at the Child Welfare Centres during the year, making 1,720 attendances, and a letter of thanks and appreciation for their services during the year has been sent to each of them.

Holiday Home.

As a tribute to the late Mrs. Schill, who founded the home, the Holiday Home at 11, Albany Road, Southport, admits mothers and babies attending Manchester Welfare Centres. The cost to the mothers is 30s. per week and the difference between the charge and working expenses is made up by the Manchester Girls' Institute.

Ante-natal Clinics.

Ante-natal Clinics are provided at 23 centres, where a total of 41 sessions are held weekly. Five sessions are held at Ardwick, 3 at Collyhurst, Chorlton-on-Medlock and Openshaw, 2 at Cheetham, Clayton, Gorton, Harpurhey, Newall Green, Rusholme, Withington and Northenden, 1 at Abbey Hey, Ancoats, Blackley, Chorlton-cum-Hardy, Crumpsall, Didsbury, Higher Blackley, Hulme, Levenshulme, New Moston and Newton Heath. 25 of the above sessions are combined doctors' and midwives' sessions. At Gorton, Higher Blackley, New Moston and Newton Heath the midwives' session is held on a separate day owing to the premises not being suitable for combined sessions.

1,587 new mothers presented themselves and 45,600 attendances were made.

At two centres V.D. treatment for mothers and children is given by arrangement with Manchester Regional Hospital Board.

In addition to the ante-natal sessions provided at these welfare centres, there is an ante-natal clinic at St. Mary's Hospital for domiciliary cases.

Post-natal Clinics.

The service has proved very satisfactory. There are now 7 centres where post-natal examinations are held. At Ardwick, Chorlton-on-Medlock, Northenden, Cheetham and Withington centres, post-natal facilities are available at the ante-natal session. At Openshaw and Collyhurst centres, post-natal clinics are held on a separate day. Mothers are recommended to attend these sessions by the medical officers at the centres, the midwives on the districts and general practitioners.

1,172 mothers made 1,460 attendances.

Ante-and Post-natal Exercises.

15 classes for mothers attending the ante-natal and post-natal clinics are held at 13 centres. 2,733 attendances were made for ante-natal exercises and 1,096 for post-natal exercises.

The purpose of this treatment is to improve the condition of mothers before and after confinement.

Minor Ailments.

210 children under five years of age were referred by the medical officers at welfare centres to school clinics for the treatment of minor ailments. The classification of the ailments of the children concerned is given in the table below. The health visitor visits the parents of children who have not attended or ceased to attend before treatment was completed and advises the parents on the desirability of the child having the necessary treatment.

Treatment of Minor Ailments.

| | |
|-------------------------------|-----|
| Squint | 31 |
| Other eye affections | 124 |
| Otorrhoea | 23 |
| Other ear affections | 10 |
| Impetigo | 6 |
| Other skin affections | 4 |
| Miscellaneous | 12 |

Dried Milk and Vitamin Preparations.

The Health Committee continued to afford facilities in their welfare centres for the distribution of National dried milk, cod liver oil, orange juice, etc., by arrangement with the Ministry of Food. Proprietary brands of dried milk were also sold to mothers at the welfare centres.

Proprietary brands of dried milk were supplied free in necessitous cases at a total cost of £152 on the recommendation of the Centre medical officer.

Mothercraft Teaching Exhibition.

The Maternity and Child Welfare Mothercraft Teaching Exhibition includes 6 sections, viz., ante-natal, child health, nutrition, play therapy, prevention of accidents and patterns and clothing.

The exhibition is used primarily for demonstration purposes during talks on these subjects by health visitors at Maternity and Child Welfare Centres, and remains at each centre for a fortnight.

The exhibition was on view at the Health Visitors' 13th Annual Week-end Refresher Course held in March, 1951, and was attended by nurses working in the various branches of public health and coming from local authorities in the North-West. The exhibition was also shown at the exhibition of Local Government Activities held in Manchester. Many visitors from overseas have also viewed the exhibition during the year.

Handicrafts are also taught at the centres and include lessons in embroidery, leatherwork, gloves and slipper making, marquetry and handloom weaving.

Mothers' Evening Clubs.

Evening clubs at Cheetham and Northenden Maternity and Child Welfare Centres have continued with the approval of the Health Committee.

The object of these clubs is to allow mothers who normally attend the Centre to meet in the evenings once a fortnight in a happy social atmosphere and thereby promoting a spirit of friendliness and cordiality. The activities of the clubs include talks, discussions, social evenings, film shows and observation visits. Both clubs have their own library.

The committees and honorary officers are elected from the mothers.

The number of enrolled members is 71 at Cheetham and 64 at Northenden.

Children attending Child Welfare Centres, 1951.

| Centre | On Register, January 1st 1951 | | | New attendances | | | On Register, January 1st, 1952 | | |
|--------------------------------|-------------------------------------|--------------|--------------|-----------------|--------------|--------------|--------------------------------------|--------------|--------------|
| | 0—1 year | 1—2 years | 2—5 years | 0—1 year | 1—2 years | 2—5 years | 0—1 year | 1—2 years | 2—5 years |
| Abbey Hey | 268 | 202 | 317 | 306 | 34 | 312 | 217 | 199 | 442 |
| Ancoats | 102 | 57 | 56 | 170 | 34 | 37 | 114 | 81 | 76 |
| Ardwick | 306 | 184 | 157 | 424 | 73 | 175 | 314 | 166 | 261 |
| Blackley | 163 | 144 | 277 | 223 | 29 | 138 | 170 | 146 | 330 |
| Burnage | 98 | 81 | 69 | 144 | 13 | 33 | 115 | 69 | 92 |
| Chorlton-on-Medlock | 255 | 128 | 129 | 304 | 60 | 84 | 224 | 134 | 152 |
| Cheetham | 306 | 164 | 277 | 325 | 42 | 168 | 246 | 134 | 289 |
| Clayton | 183 | 110 | 91 | 232 | 18 | 44 | 176 | 128 | 106 |
| Collyhurst | 347 | 179 | 269 | 494 | 56 | 275 | 370 | 209 | 353 |
| Chorlton-cum-Hardy | 298 | 241 | 294 | 398 | 45 | 164 | 294 | 245 | 415 |
| Crumpsall | 155 | 121 | 148 | 217 | 30 | 72 | 157 | 134 | 186 |
| Didsbury | 189 | 150 | 270 | 216 | 32 | 103 | 175 | 155 | 316 |
| Gorton | 303 | 154 | 122 | 401 | 57 | 206 | 317 | 165 | 265 |
| Harpurhey | 245 | 187 | 263 | 365 | 40 | 137 | 264 | 181 | 273 |
| Higher Blackley | 100 | 79 | 107 | 122 | 10 | 48 | 103 | 76 | 113 |
| Holy Name | 47 | 56 | 39 | 99 | 9 | 26 | 54 | 45 | 49 |
| Hulme | 191 | 106 | 213 | 253 | 43 | 146 | 177 | 134 | 237 |
| Levenshulme | 338 | 268 | 249 | 462 | 44 | 165 | 338 | 277 | 385 |
| Newton Heath | 229 | 152 | 330 | 306 | 43 | 184 | 221 | 163 | 339 |
| Newall Green | 224 | 235 | 529 | 421 | 93 | 348 | 320 | 203 | 612 |
| New Moston | 315 | 187 | 177 | 258 | 26 | 34 | 187 | 150 | 125 |
| Northenden | 204 | 134 | 346 | 297 | 58 | 236 | 207 | 179 | 372 |
| Openshaw | 330 | 193 | 177 | 492 | 59 | 120 | 373 | 216 | 208 |
| Rusholme | 332 | 191 | 277 | 527 | 59 | 185 | 376 | 212 | 329 |
| Sharston | 258 | 168 | 233 | 451 | 60 | 266 | 204 | 175 | 346 |
| Withington | 383 | 316 | 385 | 397 | 41 | 232 | 304 | 248 | 378 |
| Hart Road, Fallowfield | 173 | 101 | 147 | 230 | 59 | 97 | 177 | 150 | 192 |
| Totals | 6,362 | 4,288 | 5,950 | 8,534 | 1,158 | 4,035 | 6,194 | 4,374 | 7,241 |
| Totals 1950 | 6,592 | 3,847 | 3,896 | 8,452 | 1,248 | 3,609 | 6,362 | 4,288 | 5,950 |

Ante-natal Cases at Centres and Results of Delivery, 1951.

| Centre | Number on Register on 1st Jan., 1951 | Number of new cases during 1951 | Transferred from another Centre during 1951 | Total | Number still on Register 1st Jan., 1952 | Number of full-term births (alive and stillborn) | Full-term stillbirths included in previous column | Number of premature births | Premature stillbirths included in previous column | Number of Mothers left district before confinement | Transferred to another Centre | Number of Mothers not pregnant | Totals |
|---------------------|--------------------------------------|---------------------------------|---|--------|---|--|---|----------------------------|---|--|-------------------------------|--------------------------------|----------|
| Abbey Hey | 34 | 128 | 1 | 163 | 43 | 88 | 2 | 10 | 6 | 4 | 11 | 6 | 162+1* |
| Ancoats | 60 | 184 | 5 | 249 | 45 | 181 | 4 | 18 | 1 | 1 | 2 | 2 | 249 |
| Ardwick | 169 | 467 | 5 | 641 | 127 | 470 | 10 | 12 | 2 | 15 | 7 | 10 | 641 |
| Blackley | 61 | 166 | 5 | 232 | 62 | 144 | 4 | 10 | 1 | 4 | 10 | 2 | 232 |
| Cheetham | 125 | 369 | 7 | 501 | 128 | 320 | 5 | 18 | 10 | 8 | 15 | 12 | 501 |
| Chorlton-on-Medlock | 93 | 317 | 8 | 418 | 83 | 281 | 3 | 26 | 5 | 19 | 3 | 6 | 418 |
| Chorlton-cum-Hardy | 109 | 218 | 4 | 331 | 59 | 247 | 3 | 7 | 5 | 10 | 5 | 3 | 331 |
| Clayton | 90 | 227 | 4 | 321 | 93 | 201 | 1 | 8 | 3 | 9 | 8 | 2 | 321 |
| Collyhurst | 242 | 713 | 13 | 968 | 189 | 678 | 11 | 47 | 17 | 9 | 30 | 15 | 968 |
| Crumpsall | 63 | 159 | 15 | 237 | 70 | 151 | 1 | 6 | 1 | 4 | 4 | 2 | 237 |
| Didsbury | 42 | 126 | 6 | 174 | 47 | 111 | 4 | 3 | — | 8 | 4 | 1 | 174 |
| Gorton | 175 | 543 | 8 | 726 | 189 | 479 | 7 | 32 | 14 | 8 | 7 | 11 | 726 |
| Harpurhey | 143 | 377 | 12 | 532 | 129 | 350 | 5 | 20 | 7 | 10 | 16 | 7 | 532 |
| Higher Blackley | 46 | 92 | 7 | 145 | 35 | 93 | 1 | 6 | 5 | 8 | 3 | — | 145 |
| Hulme | 56 | 200 | 1 | 257 | 56 | 187 | 3 | 4 | 1 | 4 | 2 | 4 | 257 |
| Levenshulme | 115 | 316 | 5 | 436 | 101 | 282 | 3 | 22 | 4 | 14 | 10 | 7 | 436 |
| Newall Green | 118 | 427 | 28 | 573 | 133 | 370 | 1 | 28 | 5 | 9 | 28 | 5 | 573 |
| New Moston | 86 | 243 | 10 | 339 | 82 | 236 | 2 | 13 | 4 | 2 | 4 | 2 | 339 |
| Newton Heath | 98 | 280 | 4 | 382 | 106 | 245 | 3 | 17 | 6 | 5 | 7 | 2 | 382 |
| Northenden | 162 | 481 | 35 | 678 | 157 | 453 | 6 | 38 | 9 | 6 | 14 | 9 | 677+1* |
| Openshaw | 219 | 615 | 18 | 852 | 204 | 575 | 7 | 39 | 4 | 15 | 6 | 13 | 852 |
| Rusholme | 193 | 557 | 7 | 757 | 157 | 522 | 7 | 30 | 11 | 23 | 9 | 16 | 757 |
| Withington | 160 | 381 | 2 | 543 | 112 | 405 | 7 | 6 | 3 | 14 | 5 | 1 | 543 |
| Totals | 2,659 | 7,586 | 210 | 10,455 | 2,407 | 7,069 | 100 | 420 | 124 | 209 | 210 | 138 | 10,453+2 |

* Died before confinement

Care of Illegitimate Children and their Mothers.

The departmental arrangements for the care of illegitimate children and their mothers include investigation, advice and assistance, and duties in connection with the Health Committee's Hostel at Knowle House, Handforth. Cases are referred by officers of the Maternity and Child Welfare Section of the Health Department, officers of the Children's and Welfare Services Departments, hospital almoners, general medical practitioners and social workers of voluntary organisations.

The health visitor specially appointed for these duties has been assisted during the year by 1 full-time health visitor.

The following particulars indicate the extent of the work in connection with the special problems concerning married and unmarried women and widows with their illegitimate children.

| | |
|--|-------|
| (1) Office interviews | 1,112 |
| Home visits | 950 |
| Visits to hospitals | 69 |
| Visits to Knowle House | 71 |
| Visits to Mayfield House | 6 |
| Visits to voluntary hostels | 5 |
| Interviews with social workers and health visitors.. | 542 |
| Attendances at Magistrates' Courts | 81 |
| | <hr/> |
| Total visits and interviews | 2,836 |
| | <hr/> |

(2) Number and classification of persons dealt with during the ante-natal period with results of confinement :—

| | Live Births | Births Pending | Still-births | Mis-carriages | Total |
|--|-------------|----------------|--------------|---------------|-------|
| Single | 164 | 45 | 7 | 2 | 218 |
| Married | 48 | 20 | — | 1 | 69 |
| Widow | 9 | 1 | — | — | 10 |
| Divorcee | 5 | 3 | — | — | 8 |
| Parents married before birth of baby | — | 2 | — | — | 2 |
| Mother removed | — | 8 | — | — | 8 |
| Totals | 226 | 79 | 7 | 3 | 315 |

(3) Illegitimate children :—

Total number dealt with by Welfare Officer—1,036, comprising :—

252 children of mothers seen in the post-natal period only.

226 children of mothers seen in the ante-natal period during 1951.

61 children of mothers seen in the ante-natal period during 1950.

497 children whose cases were re-investigated or carried forward from previous years.

Particulars of Illegitimate Children remaining with their Mothers.

| Mothers | In lodgings or absorbed into family | With mother and putative father | With mother in a hostel | Parents subse- quently married | Removed from Manchester | No trace | Deaths | Total |
|----------------|--|--|----------------------------------|---|-------------------------------|----------|--------|-------|
| Single | 390 | 119 | 10 | 37 | 20 | 2 | 10 | 588 |
| Married | 137 | 56 | 2 | — | 5 | 1 | 2 | 203 |
| Widow | 33 | 5 | — | 2 | — | — | 1 | 41 |
| Divorcee | 13 | 6 | — | 1 | 1 | — | 1 | 22 |
| Totals | 573 | 186 | 12 | 40 | 26 | 3 | 14 | 854 |

Particulars of Illegitimate Children apart from their Mothers.

| Mothers | With adopters | With relatives | With foster mothers | Boarded out by Children's Committee | In residential nurseries (private) | In residential nurseries (Children's Committee) | Total |
|----------------|------------------|-------------------|---------------------------|--|--|--|-------|
| Single | 59 | 17 | 12 | 9 | 6 | 21 | 124 |
| Married | 21 | 13 | 1 | 5 | 1 | 9 | 50 |
| Widow | 1 | — | 1 | — | — | 2 | 4 |
| Divorcee | 3 | — | 1 | — | — | — | 4 |
| Totals | 84 | 30 | 15 | 14 | 7 | 32 | 182 |

The action taken by Welfare Officer as regards cases referred to the Department was as follows :—

Admissions arranged to—

| | |
|---------------------------|----|
| Knowle House Hostel | 81 |
| Voluntary hostels | 18 |
| Hospitals | 12 |

Ante-natal care arranged 48

Cases referred to—

| | |
|---|-----|
| Children's Department | 152 |
| Welfare Services Department | 24 |
| Mental Health Service | 8 |
| Poor Man's Lawyer Association | 15 |
| National Assistance Board | 98 |
| Probation Officers | 5 |
| Catholic Moral Welfare Council | 40 |
| Catholic Adoption Society | 18 |
| Diocesan Council for Moral Welfare | 15 |
| Manchester and Salford Methodist Mission | 18 |
| National Society for the Prevention of Cruelty to Children | 19 |
| Manchester Employment Exchange | 8 |
| Other organisations | 7 |

Assistance given—

| | |
|---|----|
| To find lodgings | 5 |
| To secure employment | 20 |
| Provision of clothing from departmental sources .. | 35 |
| Provision of perambulators and cots from departmental sources | 6 |
| Provision of clothing from voluntary sources | 34 |
| Provision of clothing from National Assistance Board.. | 8 |

Advice given *re*—

| | |
|---|-----|
| Affiliation orders | 129 |
| National Health Insurance benefit | 97 |
| Hostel accommodation | 163 |
| Institutional accommodation | 30 |
| Private residential nursery accommodation | 14 |
| Adoption | 166 |
| Day nurseries | 145 |
| Day minders | 10 |
| General matters | 239 |

Regular visits were paid to 69 families requiring close supervision.

Affiliation Order Cases.

65 applications for affiliation orders were heard by the Manchester Magistrates' Court and were dealt with as shown :—

| Assistance given by | Orders Granted |
|---------------------------------------|-------------------|
| Welfare Officer | 45 |
| Poor Man's Lawyer Association | 6 |
| National Assistance Board.. .. . | 10 |
| Private Solicitors | 4 |
| Totals | 65 |

Mother and Baby Home, "Knowle House," Handforth.

The primary reasons for admission to this home, which is administered by the Health Committee, are :—

- (a) Mother and baby homeless, either because prior to her confinement the mother had been living in an institution, hostel or lodgings or had been engaged in residential employment.
- (b) Relatives unwilling to allow the mother to return home with her illegitimate baby.
- (c) Overcrowded or unsatisfactory home conditions.

The Welfare Officer arranges for the admission of mothers and babies to the home and is responsible for making suitable arrangements for them on their discharge.

On the 1st January, 1951, there were 10 mothers and 10 babies in Knowle House, and from this date to 31st December, 1951, 81 mothers were admitted with their babies, also 2 expectant mothers, making a total of 93 mothers and 91 babies. 79 mothers, 79 babies and 2 expectant mothers were discharged, leaving 12 mothers and 12 babies in the home at the end of the year. The average stay was 6 weeks.

The following particulars show the arrangements made for the care of the 79 babies discharged from "Knowle House":—

Babies remaining with mother—

| | |
|--|----|
| In home of relatives | 16 |
| In residential domestic employment | 10 |
| In lodgings | 6 |
| In institutional accommodation | 6 |
| In hospitals | 3 |
| In Ennismore Home, Eccles | 1 |
| In prison | 1 |

Babies apart from mother—

| | |
|---|----|
| In homes of adopters | 32 |
| In private residential nurseries | 3 |
| In the care of the Children's Committee | 1 |

Recuperative Centre.

By arrangement with the Community Council of Lancashire, mothers and children are admitted to the Brentwood Recuperative Centre, Marple, Cheshire, on recommendations of the Maternity and Child Welfare Section, the cost of maintenance being borne by the Health Committee. Since 5th July, 1948, provision for these arrangements has been made in the City Council's scheme for prevention of illness, care and after-care under Section 28 of the National Health Service Act, 1946.

Admissions to the Centre during 1951 comprised 9 mothers whose ages were from 21 years to 31 years, 4 children under 1 year and 15 children from 1 to 5 years.

In addition, after a special request from St. Mary's Hospital, one mother, aged 31 years, with twin boys aged $4\frac{1}{2}$ months, were admitted to Pensarn Home for a period of three weeks.

One family remained for the full period of 6 weeks, and one family for 5 weeks, at the beginning of 1951. The full period of stay was then reduced from 6 weeks to 4 weeks and 3 mothers remained for this period. One returned home after 11 days owing to illness of a near relative. One other only stayed for 15 days, as her husband wanted her back home. Another who was at Brentwood during 1950 and had to return home as the child developed whooping cough, returned to complete her period of 6 weeks.

The four primary reasons for recommending the mothers for admission to Brentwood are :—

- (1) Lack of training and experience in housewifery and child management.
- (2) Ill-health and lowered vitality, due to too-rapid child-bearing, depressing surroundings and environment and, possibly, in the case of some mothers, malnutrition.
- (3) Unsatisfactory home conditions, including lack of domestic facilities.
- (4) Difficulties between parents, causing the mother to lose interest in her home and children.

Marked improvement in both mental and physical condition of the family is evident after a stay in Brentwood. In most cases the mothers look more alert and happy, find pleasure in household tasks, and the children benefit greatly from the training given in the Centre. By frequent visits from the health visitor it is hoped to maintain and still further improve the standard of living of these families.

Health Visiting.

Health visitors are concerned with the nutrition and development of children under school age, the health and welfare of their mothers and health education, including the teaching of mothercraft. They have had additional duties since the advent of the National Health Service Act, 1946, and their responsibilities now include advice and assistance to all members of the family.

The enlarged scope of a health visitor's duties is particularly reflected for example in work connected with aged and infirm persons and the after-care of discharged hospital patients, which continued to expand during 1951.

In December, 1951, the health visitors had under observation 58,938 children under 5 years of age.

Notification of Births.

The total number of notifications was 14,205, comprising 13,830 live births and 375 still-births. Included in these figures are 1,331 live births and 8 still-births notified by hospitals and nursing homes outside the City boundary, the mothers being Manchester residents.

Total registered births numbered 12,757, and of these 849 were illegitimate.

It has been possible in 12,686 births (12,395 live births and 291 stillbirths), representing 99 per cent. of the total registered births in the City, to consider the place in the family of each birth, and this is shown in the following tables.

Full-time and premature births have been separated, the standard birth weight of 5½lb. or under having been adopted in 1938.

Births investigated during 1951 to show place in family.

| Place in Family | Live Births | | | | Live Births | | Still-births | | | | Still-births | | Live and Still-births |
|-----------------------|-------------|----------------|--------------|----------------|-------------|-----------|--------------|----------------|--------------|-----------|--------------|---------|--------------------------|
| | Legitimate | | Illegitimate | | 1951 | 1950 | Legitimate | | Illegitimate | | 1951 | 1950 | |
| | Full time | Pre- mature | Full time | Pre- mature | | | Full time | Pre- mature | | | | | |
| | | | | | Per cent. | Per cent. | | | Per cent. | Per cent. | | | |
| 1st | 3,574 | 298 | 299 | 34 | 33.92 | 36.15 | 58 | 39 | 5 | 6 | 37.11 | 31.02 | 34.00 |
| 2nd | 3,264 | 222 | 168 | 14 | 29.58 | 30.31 | 33 | 26 | — | 1 | 20.61 | 26.41 | 29.39 |
| 3rd | 1,944 | 118 | 119 | 12 | 17.68 | 16.13 | 26 | 22 | — | 1 | 16.84 | 18.15 | 17.67 |
| 4th | 982 | 60 | 69 | 12 | 9.06 | 7.82 | 13 | 4 | — | — | 5.84 | 7.59 | 8.99 |
| 5th | 485 | 29 | 35 | 2 | 4.44 | 4.15 | 9 | 8 | — | 1 | 6.19 | 3.30 | 4.49 |
| 6th | 243 | 21 | 27 | 4 | 2.37 | 2.35 | 3 | 8 | — | — | 3.78 | 4.62 | 2.41 |
| 7th | 133 | 10 | 14 | — | 1.27 | 1.15 | 4 | 1 | 1 | 1 | 2.41 | 2.97 | 1.29 |
| 8th | 82 | 3 | 7 | — | .74 | .94 | 6 | 3 | — | 1 | 3.44 | 1.98 | .80 |
| 9th | 36 | 3 | 10 | — | .40 | .37 | 2 | 2 | — | — | 1.37 | 1.98 | .41 |
| 10th | 28 | — | 1 | — | .23 | .32 | — | — | — | — | — | 1.32 | .23 |
| 11th | 16 | 1 | 1 | — | .15 | .16 | 1 | 2 | — | — | 1.03 | .33 | .16 |
| 12th | 10 | — | — | — | .08 | .07 | 1 | 1 | — | — | .69 | .33 | .09 |
| 13th | 4 | — | — | — | .03 | .05 | — | — | — | — | — | — | .03 |
| 14th | 3 | — | — | — | .02 | .01 | — | — | — | — | — | — | .02 |
| 15th | — | — | 1 | — | .01 | .01 | 1 | 1 | — | — | .69 | — | .02 |
| 16th | 2 | — | — | — | .02 | .01 | — | — | — | — | — | — | .01 |
| Totals | 10,806 | 760 | 751 | 78 | 100.00 % | 100.00% | 157 | 117 | 6 | 11 | 100.00% | 100.00% | 100.00% |
| 12,395 | | | | 291 | | | | 12,686 | | | | | |

It is interesting to compare the size of the average family and the age of the mother of each new investigated birth in 1951 as compared with 1935 when the analysis was first made. Tables for these two years are as follows :—

(1) Age of mothers at birth of children during 1951
showing place in family of each birth.

| Age Groups Years | Place in Family | | | | | | | | | | | | | | | | Total |
|---------------------|-----------------------------------|-------|-------|-------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|-----------------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| 15— | + 2 aged 14 years 377 | 55 | 6 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | + 2 aged 14 years 440 |
| 20— | 1,904 | 1,025 | 346 | 69 | 27 | 6 | 1 | — | — | — | — | — | — | — | — | — | 3,378 |
| 25— | 1,206 | 1,387 | 774 | 363 | 129 | 48 | 17 | 4 | 2 | — | — | — | — | — | — | — | 3,930 |
| 30— | 596 | 836 | 682 | 402 | 196 | 97 | 52 | 23 | 20 | 3 | 2 | 1 | 1 | — | — | — | 2,911 |
| 35— | 171 | 342 | 327 | 229 | 156 | 99 | 61 | 43 | 12 | 16 | 10 | 6 | 1 | 2 | — | — | 1,475 |
| 40— | 42 | 74 | 100 | 69 | 56 | 50 | 26 | 26 | 17 | 10 | 8 | 4 | 2 | 2 | — | 2 | 488 |
| 45— | 4 | 4 | 3 | 5 | 5 | 2 | 4 | 6 | 2 | — | 1 | 1 | — | — | 2 | — | 39 |
| 50— | 1 | — | 1 | — | — | 1 | 1 | — | — | — | — | — | — | — | — | — | 4 |
| | 4,303 | 3,723 | 2,239 | 1,139 | 569 | 303 | 162 | 102 | 53 | 29 | 21 | 12 | 4 | 4 | 2 | 2 | 12,667 |

(2) Age of mothers at birth of children during 1935
showing place in family of each birth.

| Age Groups Years | Place in Family | | | | | | | | | | | | | | | | | | Total Births |
|---------------------|-----------------|-------|-------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 19 | |
| 15— | 294 | 25 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 320 |
| 21— | 1,617 | 718 | 184 | 39 | 9 | 1 | 1 | — | — | — | — | — | — | — | — | — | — | — | 2,569 |
| 25— | 1,419 | 1,054 | 540 | 253 | 97 | 44 | 19 | 2 | 2 | — | — | — | — | — | — | — | — | — | 3,430 |
| 30— | 489 | 627 | 486 | 337 | 207 | 140 | 74 | 50 | 17 | 7 | 5 | 1 | — | — | — | — | — | — | 2,440 |
| 35— | 118 | 288 | 235 | 194 | 159 | 132 | 111 | 88 | 65 | 30 | 16 | 6 | 4 | 1 | 2 | — | — | — | 1,449 |
| 40— | 18 | 40 | 50 | 68 | 69 | 53 | 53 | 40 | 31 | 32 | 18 | 6 | 7 | 5 | 1 | 1 | 1 | 1 | 494 |
| 45— | — | 2 | — | 5 | 9 | 6 | 4 | 1 | 6 | 7 | 5 | 5 | 4 | 3 | 1 | — | — | — | 58 |
| | 3,955 | 2,754 | 1,496 | 896 | 550 | 376 | 262 | 181 | 121 | 76 | 44 | 18 | 15 | 9 | 4 | 1 | 1 | 1 | 10,760 |

The 1951 births are further analysed to show the difference between legitimate and illegitimate births and live and stillbirths.

Age of mothers at birth of live children during 1951.
(A) *Place in family of each investigated birth (legitimate).*

| Age Groups Years | Place in Family | | | | | | | | | | | | | | | | Total Births |
|---------------------|-----------------|-------|-------|-------|-----|-----|-----|----|----|----|----|----|----|----|----|----|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| 15— .. | 300 | 49 | 6 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | 357 |
| 20— .. | 1,739 | 965 | 323 | 64 | 25 | 5 | 1 | — | — | — | — | — | — | — | — | — | 3,122 |
| 25— .. | 1,107 | 1,312 | 729 | 329 | 121 | 46 | 16 | 4 | 1 | — | — | — | — | — | — | — | 3,665 |
| 30— .. | 531 | 778 | 616 | 369 | 174 | 83 | 45 | 19 | 15 | 3 | 1 | — | 1 | — | — | — | 2,635 |
| 35— .. | 147 | 312 | 294 | 212 | 140 | 84 | 54 | 39 | 11 | 15 | 10 | 5 | 1 | 1 | — | — | 1,325 |
| 40— .. | 34 | 61 | 87 | 64 | 49 | 40 | 22 | 20 | 10 | 10 | 5 | 4 | 2 | 2 | — | 2 | 412 |
| 45— .. | 3 | 4 | 3 | 2 | 5 | 2 | 3 | 3 | 2 | — | 1 | 1 | — | — | — | — | 29 |
| 50— .. | 1 | — | 1 | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 3 |
| | 3,862 | 3,481 | 2,059 | 1,042 | 514 | 261 | 141 | 85 | 39 | 28 | 17 | 10 | 4 | 3 | — | 2 | 11,548 |

(B) *Place in family of each investigated birth (illegitimate).*

| Age Groups Years | | | | Place in Family | | | | | | | | | | | Total Births | | |
|-------------------------|----|----|----|-----------------|-----|-----|----|----|----|----|---|----|----|----|--------------|----|-----|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | 12 | 15 |
| 14— | .. | .. | .. | 2 | — | — | — | — | — | — | — | — | — | — | 2 | | |
| 15— | .. | .. | .. | 68 | 5 | — | — | — | — | — | — | — | — | — | 73 | | |
| 20— | .. | .. | .. | 133 | 49 | 20 | 4 | 1 | 1 | — | — | — | — | — | 208 | | |
| 25— | .. | .. | .. | 64 | 56 | 34 | 28 | 5 | 1 | 1 | — | 1 | — | — | 191 | | |
| 30— | .. | .. | .. | 45 | 41 | 45 | 28 | 17 | 9 | 5 | 3 | 4 | — | — | 198 | | |
| 35— | .. | .. | .. | 15 | 19 | 23 | 14 | 12 | 11 | 5 | 2 | — | 1 | — | 100 | | |
| 40— | .. | .. | .. | 5 | 12 | 9 | 4 | 2 | 9 | 2 | 2 | 5 | — | 1 | 51 | | |
| 45— | .. | .. | .. | 1 | — | — | 3 | — | — | — | — | — | — | — | 5 | | |
| 50— | .. | .. | .. | — | — | — | — | — | — | 1 | — | — | — | — | 1 | | |
| | | | | 333 | 182 | 131 | 81 | 37 | 31 | 14 | 7 | 10 | 1 | 1 | — | 1 | 829 |

Age of mothers at birth of stillborn children during 1950.

(A) *Place in family of each investigated stillbirth (legitimate).*

| Age Groups Years | Place in Family | | | | | | | | | | | | | | Total Births |
|---------------------|-----------------|----|----|----|----|----|---|---|---|----|----|----|----|----|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 15 | |
| 15— | 8 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | 9 |
| 20— | 26 | 10 | 3 | 1 | 1 | — | — | — | — | — | — | — | — | — | 41 |
| 25— | 31 | 19 | 10 | 5 | 3 | 1 | — | — | — | — | — | — | — | — | 69 |
| 30— | 20 | 17 | 21 | 4 | 4 | 5 | 1 | 1 | 1 | — | 1 | 1 | — | — | 76 |
| 35— | 9 | 11 | 10 | 5 | 4 | 4 | 2 | 1 | 1 | — | — | — | 1 | — | 48 |
| 40— | 3 | 1 | 4 | 1 | 5 | 1 | 1 | 4 | 2 | — | 2 | 1 | — | 1 | 26 |
| 45— | — | — | — | — | — | — | 1 | 3 | — | — | — | — | — | — | 4 |
| | 97 | 59 | 48 | 16 | 17 | 11 | 5 | 9 | 4 | — | 3 | 2 | 1 | 1 | 273 |

(B) *Place in family of each investigated stillbirth (illegitimate).*

| Age Groups Years | Place in Family | | | | | | | | Total Births |
|---------------------|-----------------|---|---|---|---|---|---|---|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| 15— | 1 | — | — | — | — | — | — | — | 1 |
| 20— | 6 | 1 | — | — | — | — | — | — | 7 |
| 25— | 1 | — | 1 | — | — | — | — | — | 2 |
| 30— | 3 | — | — | — | 1 | — | 1 | — | 5 |
| 35— | — | — | — | — | — | — | — | 1 | 1 |
| 40— | — | — | — | — | — | — | 1 | — | 1 |
| | 11 | 1 | 1 | — | 1 | — | 2 | 1 | 17 |

Stillbirths.

The number of stillbirths allocated to the health visitors for investigation was 291.

Found Children.

The health visitors found 1,327 other children belonging to families which had moved into Manchester during the year. The year of their birth was as follows :—

277 born 1951.

389 „ 1950.

331 „ 1949.

176 „ 1948.

154 „ 1947.

Deaths.

502 deaths occurred amongst children under 5 years of age.

The classification according to age is :—

439 children under 1 year.

38 „ 1—2 years.

12 „ 2—3 years.

8 „ 3—4 years.

5 „ 4—5 years.

The distribution according to age of children who died under 1 year was as follows :—

| Died under 1 day | Died 1 to 7 days | Died 1 week to 4 weeks | Died 1 month to 3 months | Died 3 months to 6 months | Died 6 months to 9 months | Died 9 months to 12 months | Total |
|---------------------|------------------------|------------------------------|--------------------------------|---------------------------------|---------------------------------|----------------------------------|-------|
| 116 | 86 | 49 | 77 | 54 | 38 | 19 | 439 |

The following table gives mortality rates for the past 10 years amongst children 1—5 years. This is based upon the number of live births for the year.

**Infant Mortality Rate and Case Mortality Rates
for Measles and Whooping Cough.**

| Year | Infant Mortality Rate | Mortality Rate 1—2 years | Mortality Rate 2—5 years | Mortality Rate 1—5 years | Total cases of Measles | | Total known cases of Whooping Cough | |
|---------|-----------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------|-----------------------|---|-----------------------|
| | | | | | Cases | Mortality per cent | Cases | Mortality per cent |
| 1942 .. | 64.52 | 5.5 | 7.6 | 13.1 | 10,468 | .16 | 1,103 | 1.45 |
| 1943 .. | 60.88 | 5.9 | 6.8 | 12.7 | 4,419 | .27 | 3,277 | 1.28 |
| 1944 .. | 53.59 | 5.6 | 3.8 | 9.4 | 6,736 | .13 | 2,003 | 1.30 |
| 1945 .. | 55.80 | 3.7 | 6.0 | 9.7 | 5,596 | .14 | 1,835 | 1.36 |
| 1946 .. | 63.71 | 3.7 | 3.9 | 7.7 | 3,800 | .08 | 2,265 | 1.41 |
| 1947 .. | 59.76 | 4.1 | 3.4 | 7.5 | 9,008 | .23 | 2,308 | .78 |
| 1948 .. | 42.12 | 3.2 | 3.9 | 7.1 | 10,650 | .16 | 2,612 | .73 |
| 1949 .. | 38.24 | 2.7 | 4.5 | 7.2 | 6,485 | .11 | 2,749 | 1.05 |
| 1950 .. | 37.87 | 2.7 | 3.4 | 6.1 | 9,798 | .08 | 4,187 | .41 |
| 1951 .. | 35.29 | 3.1 | 2.0 | 5.1 | 8,953 | .01 | 2,255 | .13 |

Infant and Child Mortality per 1,000 Births.

Quinquennial periods 1911—1951.

| Quinquennial Period | Infant Mortality | Child Mortality, 1—2 years | Child Mortality, 2—5 years |
|------------------------|---------------------|-------------------------------|-------------------------------|
| 1911—1915 | 133.13 | 45.0 | 35.5 |
| 1916—1920 | 104.51 | 34.9 | 34.3 |
| 1921—1925 | 95.85 | 34.2 | 23.9 |
| 1926—1930 | 87.88 | 26.2 | 20.9 |
| 1931—1935 | 77.34 | 18.3 | 17.6 |
| 1936—1940 | 70.81 | 11.3 | 11.3 |
| 1941—1945 | 63.85 | 6.3 | 8.1 |
| 1946—1950 | 48.34 | 3.3 | 3.8 |
| 1951 | 35.29 | 3.1 | 2.0 |

CAUSES OF DEATH IN CHILDREN UNDER 1 YEAR
MANCHESTER FIGURES (52 WEEKS).

[illegible]

1
1
1
1
1
1
1
1
1
1
1

—

—

19
19
19
19
19
19
19
19
19
19

—

Expectant Mothers.

Health visitors also visited at the end of six months all mothers who had given birth to a stillborn child or to a child who had died before reaching the age of one month, in order to ensure adequate ante-natal care should she subsequently become pregnant. 333 stillbirths and 263 neo-natal deaths occurred in the City during 1950 and 1,214 special visits were made by the health visitors during 1951 to those mothers. In this way 53 expectant mothers who might require special care were brought to the notice of the Department.

Co-operation with School Health Service.

A report on every child reaching school age and known, on the health visitor's final visit, to be suffering from medical defect or to have an unsatisfactory family history, is referred to the School Health Department ; 729 such summaries were sent during the year, classified as follows :—

| | | | | | | |
|-----------------------------------|----|----|----|----|----|-----------------|
| Unsatisfactory condition in child | .. | .. | .. | .. | .. | 508 |
| History of tuberculosis in child | .. | .. | .. | .. | .. | 37 |
| History of tuberculosis in family | .. | .. | .. | .. | .. | 144 |
| History of rheumatism in child | .. | .. | .. | .. | .. | 8 |
| History of rheumatism in family | .. | .. | .. | .. | .. | 23 |
| Unsatisfactory history in family | .. | .. | .. | .. | .. | 9 |
| Total | .. | .. | .. | .. | .. | <hr/> 729 <hr/> |

Welfare of Women and Children on Canal Boats.

The health visitor made 17 visits to tying-up places for canal boats in the City. The Manchester canal transport companies do not allow women and children on their boats, but in 9 visits the health visitor found women and children occupying 13 “ narrow ” boats which were visiting the City.

The families came from Birmingham, Wolverhampton, Worcester and Stoke-on-Trent.

During the Manchester dock strike there were no canal boats at tying-up places for several weeks, all boats being diverted elsewhere until the strike ended.

Of the 9 families found to be occupying 13 boats, 4 families each occupied 2 boats.

The total number of children on the boats was 32 and their ages were as follows :—

| | | | | | | |
|---------------|----|----|----|----|----|----|
| Under 1 year | .. | .. | .. | .. | .. | 1 |
| 1 to 5 years | .. | .. | .. | .. | .. | 3 |
| 6 to 15 years | .. | .. | .. | .. | .. | 22 |
| Over 15 years | .. | .. | .. | .. | .. | 6 |

The following particulars noted on visits to the families concerned illustrate the undesirability of allowing families with children to live on canal boats.

- (a) This family included six children with ages ranging from 15 months to 13 years, including a three-years-old girl suffering from bronchitis. This child was admitted to hospital and arrangements were made for the parents to collect the child on a return journey to the City.

The mother had an enlarged thyroid, but refused treatment.

The boat was found to be in a fairly clean condition.

- (b) A family with six children from 6 years to 15 years old occupied two boats.

One girl of 13 years could read and write and taught the other children. The boats were fairly clean, but one was in a bad condition structurally and was to be refitted in Birmingham after discharge of the cargo.

- (c) This family also occupied two boats. There were children aged 2, 4 and 14 years, and both parents expressed concern for their welfare and general dissatisfaction with life on canal boats.

The father could neither read nor write and felt unable to change his occupation due to inability to secure other employment.

- (d) A family from Stoke-on-Trent occupied a boat and it was overcrowded. At one time the family were registered for a Corporation house in Manchester but have since refused a house, preferring to live on a canal boat. They were all ill-clad and of poor physique. The children had been previously in the care of Stoke-on-Trent Children's Committee.

- (e) A Wolverhampton family on two boats appeared to be satisfied with their life on canal boats.

They had a child of 5 years and appeared to have known no other mode of life.

There was no particular feature to report regarding the remaining families. The general standard of cleanliness is low and several families complained that the only method of disposing of refuse is to throw it into the canal.

Children suffer from lack of education, since there is no opportunity for them to attend school regularly as boats are only tied up for comparatively short periods. They are also often shy and diffident, having little contact with other children. Few parents appear to show real concern as to the education of their children. It was found that very few children had been immunised against diphtheria or had been vaccinated and that they were not, in the main, receiving the vitamins available to them under the Ministry of Food's scheme.

Care of Aged and Infirm Persons.

Special provision is made in the National Assistance Act, 1948, for securing the necessary care and attention for persons who—

- (a) are suffering from grave chronic disease or, being aged, infirm or physically incapacitated, are living in insanitary conditions; and
- (b) are unable to devote to themselves and are not receiving from other persons proper care and attention.

2,738 individual visits were paid by health visitors to 873 persons whose circumstances were reported to be unsatisfactory and were brought to the notice of the Department, including 172 brought forward from last year.

In dealing with these cases the Department continued to maintain close liaison with the Welfare Services Department, Manchester and Salford District Nursing Institution and hospital almoners.

Details follow with regard to the action taken to deal with the cases reported and the comparable figures for 1950 :—

| | 1950 | 1951 |
|---|------------|------------|
| Voluntary admissions to Hospital— | | |
| Crumpsall | 39 | 110 |
| Withington | 70 | 93 |
| Springfield | 44 | 19 |
| Newholme | 8 | 9 |
| Manchester Royal Infirmary | 2 | 5 |
| Monsall | 1 | — |
| Ancoats | 1 | 2 |
| Davyhulme | — | 1 |
| Shaw Heath Hospital, Stockport | — | 1 |
| Northern Hospital | — | 1 |
| Jewish Hospital | — | 1 |
| Polish Hospital, Wrexham | — | 1 |
| Admitted to— | | |
| Mental Home | 1 | — |
| Little Sisters of the Poor | 2 | 5 |
| Home for Blind | 2 | 1 |
| Private Nursing Home | 11 | 9 |
| Referred to— | | |
| Mental Health Section | 10 | 10 |
| Welfare Services Department | 40 | 50 |
| Blind Aid Society | — | 2 |
| Sanitary Section | 3 | — |
| Tuberculosis Section | 1 | 1 |
| Died before admission to hospital | 59 | 109 |
| Recovered (nursed at home) | 10 | 25 |
| Removed—no trace | — | 5 |
| Removed to a relative's home | 3 | 12 |
| Compulsory removals under Section 47 of the National Assistance Act, 1948 | 19 | 15 |
| No further action necessary | 22 | 50 |
| Carried forward at 1st January, 1952 | 172 | 336 |
| | <u>520</u> | <u>873</u> |
| Total number of visits paid during period 1st January, 1950, to 31st December, 1950 | 1,592 | |
| Total number of visits paid during period 1st January, 1951, to 31st December, 1951 | | 2,738 |

**Particulars of Persons dealt with under Section 47 of
the National Assistance Act, 1948.**

During the Year 1951.

15 persons were dealt with during the year and of these 11 were admitted to Part III accommodation and 4 to chronic sick wards. In addition there were 14 persons under supervision at 1st January, 1951.

This total of 29 persons comprised the following :—

| | |
|---|-----------|
| Died during the year | 10 |
| Settled in accommodation and unnecessary to renew Court Order | 5 |
| Discharged home to care of relatives | 1 |
| Transferred to Jewish Home for the Aged | 1 |
| Alive at end of year and renewal of Court Orders necessary | 12 |
| Total | 29 |

Section 47—National Assistance Act, 1948.

Cases during 1951.

| Sex Age | Reason for Council's action | Period named in the order of the Court | Type of accommodation to which the person was removed | Ultimate result of Council's action | Other information of interest |
|---------|--|--|---|--|---|
| M. 74 | Aged and infirm. Living in insanitary conditions and is unable to devote to himself, and is not receiving from other persons, proper care and attention. | 3 months | Part III Newholme | .... | Lazy and dirty : sleeping the same room as his sister aged 83 years. Died 1.11.51 in Newholme |
| F. 80 | Ditto. | 3 months | Part III Newholme | 18.7.51. Settled in Springfield. No need to renew Court Order. | No relatives in England : three children in Canada. Dirty. Very deaf. Sight failing. |
| F. 70 | Ditto. | 3 months | Chronic Sick Ward, Withington Hospital | .... | Dirty. Living alone (no relatives). Deaf. Ill as result of neglected ulcerated leg, leading to Cellulitis. Died 22.3.51, 2 weeks after admission. |
| F. 80 | Ditto. | 3 months | Part III Newholme | .... | House filthy and foul smelling. Not capable of preparing meals for herself. No fire, in spite of having a supply of coal. Left eye inflamed. Scalp dirty and sore. Died 22.3.51, 2 weeks after admission. |
| M. 68 | Aged and infirm. Living in insanitary conditions. Unable to devote to himself, and is not receiving from others, proper care and attention. Showing signs of malnutrition. | 3 months | Part III Newholme | .... | Troublesome cough : eyes sore : refused to have treatment or attendance of a doctor. No known relatives. Died in Newholme, 19.12.51 |
| F. 80+ | Aged and infirm. Living in insanitary conditions. Unable to devote to herself, and is not receiving from others, proper care and attention. Patient very ill. | 3 months | Chronic sick bed, Crumpsall Hospital | .... | Son and daughter both married with families and no room to accommodate the mother and not living near enough to give her the required care. Died in Crumpsall Hospital, September, 1951. |

| Sex Age | Reason for Council's action | Period named in the order of the Court | Type of accommodation to which the person was removed | Ultimate result of Council's action | Other information of interest |
|---------|---|--|--|--|--|
| F. 86 | Aged and infirm. Living in insanitary conditions and is unable to devote to herself, and is not receiving from others, proper care and attention. Relatives too old and live too far away to help. | 3 months | Part III Newholme | .... | Only relatives, two sisters living in Derby. (1) 88 years and an invalid. (2) 77 years and lame, due to a recent motor accident and attending her local hospital for treatment. Died 19.5.51. |
| M. 69 | Living in very insanitary conditions. Dirty and verminous personally. Unable to devote to himself, and is not receiving from others, proper care and attention. | 3 months | Part III Springfield. | 22.1.52 — Transferred to Jewish Home for the Aged. | Had a room in sister's home. Refused to keep himself or the room clean: became violent and abusive when advised to do so. Sister had previously been involved in heavy expense for the removal of an accumulation of rubbish by brother, as a result of a Court Order. |
| F. 79 | Aged and infirm. Living in insanitary conditions: unable to devote to herself, and not receiving from others, proper care and attention. | 3 months | Part III Newholme. | Extension of Court Order — 18.10.51 | Deaf and almost blind—lived alone. |
| F. 70 | Aged and infirm. Dirty and verminous. Living in insanitary conditions. Unable to devote to herself, and is not receiving from others, proper care and attention. | 3 months | Chronic sick bed, Crumpsall | Extension of Court Order—19.12.51. | No known relatives. Patient ill. |
| F. 78 | Aged and infirm. Living in insanitary conditions: unable to devote to herself, and not receiving from others, proper care and attention. | 3 months | Part III Newholme. | Extension of Court Order — 29.11.51. | No known relatives. Had frequent falls. Fell and fractured wrist four months prior to admission to Newholme. |
| F. 62 | Aged and infirm—verminous. Living in insanitary conditions. Unable to devote to herself, and is not receiving from others, proper care and attention. Irrational and confused. Very senile for her age. | 3 months | Part III Newholme. | Extension of Court Order—28.12.51. | No known relatives. |
| F. 51 | Patient ill: advanced case of Huntington's Chorea: has refused admission to hospital on three occasions when the ambulance arrived. Home dirty and neglected. Patient dirty and very neglected looking. | 3 months | Chronic sick bed, Withington Hospital. | Extension of Court Order—19.12.51. | Patient was keeping a boy (son), aged 9 years, away from school to look after her. Refused to allow her married daughter to go in and keep the home clean. |
| F. 77 | Living in insanitary conditions. Dirty personally. Appears quite incapable of keeping herself or her room clean and will not allow others to do so. | 3 months | Part III Newholme. | Date of first Court Order—19.12.51. | Patient is vicious and abusive and has very objectionable and dirty personal habits. Lives in sister's house, occupying one room. The sister keeps her part of the home clean. |
| F. 66 | Living in insanitary conditions. Verminous. Appears incapable of caring for herself and is not receiving from others proper care and attention | 3 months | Part III Newholme, and transferred same day to Springfield | Date of first Court Order—19.12.51. | Husband in Springfield hospital. |

Verminous Conditions and Scabies.

Persons treated for Verminous Conditions at Monsall Clinic.

| Year | Males Adult | Females Adult | School Children | Children under 5 | Total |
|------------|-------------|---------------|-----------------|------------------|-------|
| 1947 | 187 | 299 | 400 | 113 | 999 |
| 1948 | 236 | 92 | 259 | 20 | 607 |
| 1949 | 229 | 99 | 242 | 24 | 594 |
| 1950 | 319 | 133 | 202 | 13 | 667 |
| 1951 | 507 | 116 | 276 | 22 | 921 |

The Department has a scheme for supplying special steel combs at cost price to mothers and 34 steel combs were so distributed during 1951.

Scabies.

The main source of notification of scabies is the Education Department, but many cases are brought to the notice of health visitors, either as contacts of those notified by the School Health Service or as new cases.

The source and number of notifications received during 1951 and the preceding years were as follows :—

Sources of Notification of Scabies.

| | 1947 | 1948 | 1949 | 1950 | 1951 |
|--------------------------------------|-------|-------|------|------|------|
| School Health Service | 986 | 433 | 276 | 140 | 162 |
| Hospitals | 330 | 42 | 24 | 6 | 8 |
| General Practitioners | 504 | 265 | 158 | 130 | 107 |
| Centre Medical Officers | 100 | 44 | 30 | 4 | 4 |
| Health Visitors | 375 | 163 | 70 | 10 | 3 |
| Children's Department | — | — | — | — | 1 |
| Applied voluntarily | 295 | 137 | 78 | 99 | 50 |
| Discovered at Monsall Clinic | 13 | 9 | 3 | 17 | 16 |
| H.M. Forces | — | 1 | — | — | — |
| Salvation Army | 1 | 4 | — | 6 | 1 |
| Welfare Services Department | 9 | — | — | 8 | 1 |
| Sanitary Section | — | — | — | — | 2 |
| Ministry of Health | 7 | 2 | 3 | — | — |
| Business Houses | 10 | 13 | 2 | — | 1 |
| Day Nurseries | 1 | — | — | 6 | — |
| Total | 2,631 | 1,113 | 644 | 426 | 356 |

The number of persons treated at Monsall is shown in the following table :—

Treatment for Scabies.

| Year | Males Adult | Females Adult | School Children | Children under 5 | Total Persons |
|------------|-------------|---------------|-----------------|------------------|---------------|
| 1947 | 523 | 794 | 313 | 359 | 1,989 |
| 1948 | 257 | 320 | 168 | 154 | 899 |
| 1949 | 162 | 186 | 82 | 75 | 505 |
| 1950 | 93 | 143 | 76 | 79 | 393 |
| 1951 | 61 | 88 | 66 | 63 | 278 |

Scabies is treated by two applications of an emulsion of benzyl benzoate with an interval of from one to four days between the first and second treatments.

The health visitor paid 174 visits to homes in which scabies occurred.

Monsall Clinic provides a 12-hour service on Wednesday of each week to suit the convenience of workers unable to attend during the day.

The Clinic received 121 visitors during the year for purposes of receiving instruction and information. The visitors included district nurses, student nurses, student nursery nurses and nursing cadets.

National Society for the Prevention of Cruelty to Children.

The Department is again indebted to this Society for assistance in dealing with certain difficult cases. During the year help was sought for 30 cases, compared with 24 in 1950, 25 in 1949 and 15 in 1948.

Training of Student Health Visitors.

The Department continues to afford practical training for student health visitors. The training course extends for 33 weeks from October to May, the lectures being given at the Manchester Municipal College of Technology. 39 students entered for the examination of the Royal Sanitary Institute which was held at the conclusion of the last course. 33 students were successful at the first attempt, 6 students passed the examination at the second attempt.

41 students enrolled for the present course which commenced in October, 1951, 14 being sponsored by the City Council under its Health Visitor training scheme.

Other students were sponsored by local authorities in the North-West region.

The course includes lectures on many subjects in addition to observation visits of an instructive nature. The students spent a portion of their training in observing various aspects of the work of the Health and other departments of the local authority dealing with the social services and also the work of health visitors in rural and county borough areas. Visits were also made to an infectious diseases hospital and a sanatorium.

An exhibition of the students' work is shown at the same time as the annual refresher course for health visitors and public health nurses. The exhibition consists of projects carried out by groups of students on various subjects, including international health, housing and tuberculosis. Toys and garments made by the students were also shown.

Visitors from France, United States of America, Syria and China in the medical and nursing profession were shown the work of the training course.

Nursing Homes Registration.

(Public Health Act, 1936, Sections 187/194.)

There were 14 registered nursing homes in the City at the end of the year, of which 4 were registered for maternity patients, 2 for maternity, medical and surgical, and 8 for medical cases only.

Two nursing homes were discontinued during the year.

Exemptions under Section 192 of the Public Health Act, 1936, were granted to 4 voluntary hospitals.

All registered nursing homes were regularly inspected during the year by a medical officer,

Visits by Health Visitors, 1951.

| Type or cause of visit | Number |
|---|---------|
| Primary visits | 13,110 |
| Subsequent visits | 36,765 |
| Children 1—2 years | 24,994 |
| Children 2—3 years | 23,854 |
| Children 3—4 years | 21,218 |
| Children 4—5 years | 24,466 |
| Children 5—14 years | 1,962 |
| Special visits (not otherwise accounted for) | 634 |
| Visits "out" | 8,991 |
| Persons over 14 years | 5,772 |
| Visits by Centre Superintendents— | |
| Ante-natal | 559 |
| Post-natal | 4 |
| Infants | 97 |
| Total | 162,426 |
| Classified visits included in the above total— | |
| Children—removals | 5,939 |
| Children—not seen | 10,082 |
| Ante-natal care— | |
| Stillbirths, primary | 289 |
| Stillbirths, subsequent, Ex. | 57 |
| Stillbirths, subsequent, N.P. | 160 |
| Neonatal deaths, Ex. | 41 |
| Neonatal deaths, N.P. | 142 |
| Expectant mothers, primary visits | 1,129 |
| Expectant mothers, subsequent visits | 294 |
| Overcrowding and sanitary defects— | |
| Overcrowding | 5 |
| Defects reported | 27 |
| Special visits | 4 |
| Scabies— | |
| Primary visits | 155 |
| Subsequent visits | 19 |
| Verminous conditions— | |
| Primary visits | 428 |
| Subsequent visits | 167 |
| Measles— | |
| Primary visits | 6,168 |
| Subsequent visits | 364 |
| German measles, primary visits | 80 |
| German measles, subsequent visits | 14 |
| Whooping cough— | |
| Primary visits | 237 |
| Subsequent visits | 26 |
| Pneumonia— | |
| Primary visits | 133 |
| Subsequent visits | — |
| Miscellaneous— | |
| Investigations <i>re</i> infantile diarrhoea | 1 |
| Aged and infirm cases | 2,738 |
| Wrong addresses— | |
| Infants | 326 |
| Infectious diseases | 32 |
| Investigation of V.D. primary | 73 |
| Investigation of V.D. subsequent | 191 |
| Total | 29,321 |
| Visits by student health visitors | 2,843 |
| Number of Child Welfare Centre Sessions attended by health visitors | 9,139 |

Day Nurseries.

There was no change in the number of day nurseries administered by the Health Committee. The accommodation, which provides for 1,450 children in 29 nurseries, was fully occupied.

In view of the extended powers given to local health authorities under the National Health Service (Amendment) Act, 1949, the basis of computation of the charge to be made for each child's attendance was reviewed and it was ascertained that the actual cost of food provided, including the cost of its preparation and cooking, was 2s. In view of this, the charge for each attendance was increased on the 1st April, 1951, from 1s. 6d. to 2s.

An attempt has been made to maintain a higher average attendance without overcrowding and the number of children on the register at the end of the year was 1,583, which is 9 per cent. higher than the actual number of places provided. This has resulted in the average daily attendance being 1,197, which is 30 higher than in the previous year. New admissions during the year numbered 1,218, and the number of discharges was 1,163. The number of children on the waiting list at the end of the year was 3,610, which is 475 fewer than at the end of 1950.

Every child has a medical examination before admission and a routine examination at intervals during its stay in the nursery. During the year the Department's medical officers made 7,123 such examinations.

736 children attending the nurseries were known to have had an infectious disease, compared with 1,086 in the previous year. The infectious diseases concerned were :—

| | |
|-------------------------|-----|
| Measles | 180 |
| Whooping cough | 70 |
| Scarlet fever | 26 |
| Scarletina | 3 |
| Mumps | 35 |
| Chicken pox | 213 |
| German measles | 30 |
| Sonne dysentery | 178 |
| Poliomyelitis | 1 |

Accidents which are almost entirely unavoidable still occur to children in the nurseries in spite of the attention and care of the nursery staff. 56 accidents of a minor nature were reported during the year.

Chain link fencing has been erected round the nurseries and, whilst this has the effect of making the premises more private, it has not been a deterrent to persons making unlawful entrance after the premises have been closed. 59 burglaries took place during the year, causing a great deal of damage, disorder and loss of goods.

6 nursery students were successful in obtaining the Diploma of the National Nursery Examination Board.

22 nursery assistants successfully completed the Senior Child Care Reserve Course, 6 nursery assistants passed the warden's course and 4 others attended as a refresher course. 10 matrons and deputy matrons also benefited by attending a nursery matron's refresher course.

The Maternity and Child Welfare Sub-Committee made a special visit to Haven Lane Day Nursery, Oldham, on the invitation of the Oldham Health Committee and made routine visits to 13 day nurseries during the year.

Nurseries and Child Minders Regulation Act, 1948.

There are two factory nurseries registered under the Act and they provide accommodation for 60 children.

Hulme Day Nursery, the only remaining voluntary day nursery in Manchester, is also registered under the Act, and has accommodation for 40 children. The maintenance of this nursery is subsidised by the City Council under powers contained in Section 22, National Health Service Act, 1946.

5 persons were registered as child-minders during 1951, and a similar number requested their names to be removed from the register for various reasons. At the end of the year there were 5 persons registered to care for 38 children.

Day Minded Children.

A person who cares for less than three children is not registered under the Nurseries and Child Minded Regulation Act unless the person concerned expresses a wish to be registered. The Department maintains a list of relatives and neighbours who look after one or two children whose mothers go out to work.

The number of dayminded children known to the Department is 664.

All persons and premises registered under the Act are visited periodically by a medical officer and health visitor on the staff of the Department and a health visitor makes routine visits to all children under 5 years of age who are known to be dayminded.

DENTAL INSPECTION AND TREATMENT OF MOTHERS AND YOUNG CHILDREN.

Difficulties due to lack of suitable premises and staff have been the main factors in preventing a proper expansion of the priority dental service for mothers and young children to meet the requirements of Section 22 of the National Health Service Act, 1946.

The problem was reviewed by the Health Committee during the year and steps have been taken to assess precise requirements and the possible utilisation of school dental clinics when not in use for school children.

It is anticipated that some progress will be made in this direction during 1952, including facilities at the dental laboratory of the School Health Service and X-ray examinations at the Dental Hospital for Manchester.

The services of two part-time dental surgeons continue to be retained by the Health Committee, and treatment for mothers and young children has been given at the Committee's two existing dental clinics.

Treatment for expectant and nursing mothers consists of the extraction of teeth only for the relief of pain or sepsis.

Where provision of dentures has been necessary following extractions, the cost has been reimbursed by the Health Committee. Children are treated by extraction for the relief of pain and by silver nitrate in an attempt to arrest dental decay.

Details of treatment completed are shown below.

(a) *Numbers Provided with Dental Care.*

| | Examined | Needing treatment | Treated | Made dentally fit |
|----------------------------------|----------|-------------------|---------|---|
| Expectant and nursing mothers .. | 276 | 276 | 276 | Every endeavour is made to render the mouth free from sepsis. |
| Children under 5 | 2,176 | 2,176 | 2,176 | 2,176 |

(b) *Forms of Dental Treatment Provided.*

| | Extractions | Anaesthetics | | Fillings | Sealings or Sealing and gum treatment | Silver nitrate treatment | Dressings | Radio-graphs | Dentures provided | |
|-------------------------------------|-------------|-----------------|---------|----------|---------------------------------------|--------------------------|-----------|--------------|-------------------|---------|
| | | Local | General | | | | | | Complete | Partial |
| Expectant and nursing mothers | 1,074 | 506 | — | — | 8 | 3 | — | — | — | — |
| Children under 5 .. | 557 | Anestile 557 | — | — | — | 7,682 | — | — | — | — |

VENEREAL DISEASES.

Treatment of mothers and children for venereal diseases has continued at two maternity and child welfare centres by arrangement with the Manchester Regional Hospital Board.

The total attendances during the year were 4,122, compared with 4,770 in the previous year.

New patients attending numbered 517, 57 more than in 1950, 45 of these were found to be suffering from one of the venereal diseases :—

Syphilis—males 3, females 37.

Gonorrhoea—males 0, females 5.

Penicillin treatment was given to 32 patients.

Follow-up of Defaulters.

Health visitors follow up defaulters from any clinic when requested, if they live within the City boundary.

When necessary, repeated visits are paid, including evening visits, and no effort is spared to try to get defaulters to attend for treatment.

In some instances arrangements are made to accompany those who are reluctant to return to the clinic after failing to keep appointments, or the plausible ones who always promise to attend but never do so.

The total number of visits paid during the year was 264 and comprises 73 primary and 191 subsequent visits.

Contact Tracing.

Every effort is made to get all contacts referred to the department to attend a clinic, but unfortunately some of those referred are impossible to trace, due to the lack of information given. In many cases there is nothing more than a nickname and a vague personal description. Addresses given often prove to be fictitious, but although the health visitors have a number of disappointing and fruitless visits in these cases, it is gratifying to report that many of those followed up have been persuaded to attend a clinic for tests and follow on with treatment when necessary.

The following table shows particulars of work done during the year :—

| | | Syphilis | | Gonorrhoea | | *Other Conditions | | Totals | | |
|--|---|----------|-----|------------|----|-------------------|-----|--------|-----|--------|
| | | M. | F. | M. | F. | M. | F. | M. | F. | Totals |
| 1. Number of patients on 1st January under treatment or observation | | 14 | 149 | — | 5 | 38 | 65 | 52 | 219 | 271 |
| 2. Number of patients removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection | | 1 | 7 | — | — | — | — | 1 | 7 | 8 |
| 3. Number of patients dealt with for the first time during the year under report (exclusive of those under Item 4) suffering from :— | | | | | | | | | | |
| (a) Syphilis, primary | | — | 1 | — | — | — | — | — | 1 | 1 |
| (b) " secondary | | — | 2 | — | — | — | — | — | 2 | 2 |
| (c) " latent in 1st year of infection † | | — | — | — | — | — | — | — | — | — |
| (d) " cardio-vascular* | | — | — | — | — | — | — | — | — | — |
| (e) " of the nervous system* | | — | — | — | — | — | — | — | — | — |
| (f) " all other late or latent stages* | | 2 | 27 | — | — | — | — | 2 | 27 | 29 |
| (g) " congenital (under 1 year) | | — | — | — | — | — | — | — | — | — |
| (h) " " (over 1 year) | | 1 | 7 | — | — | — | — | 1 | 7 | 8 |
| (i) Gonorrhoea | | — | — | — | 5 | — | — | — | 5 | 5 |
| Other conditions | (j) Chancroid | — | — | — | — | — | — | — | — | — |
| | (k) Lymphogranuloma inguinale | — | — | — | — | — | — | — | — | — |
| | (l) Granuloma venereum | — | — | — | — | — | — | — | — | — |
| | (m) Any other conditions requiring treatment | — | — | — | — | 9 | 90 | 9 | 90 | 99 |
| | (n) Conditions not requiring treatment | — | — | — | — | 116 | 257 | 116 | 257 | 373 |
| (o) Conditions remaining undiagnosed at 31st December | | — | — | — | — | — | — | — | — | — |
| 4. Number of patients dealt with for the first time who have been transferred from other Centres (civil or Service) or from practitioners approved under Ministry of Health Circular 2226 | | — | 9 | — | — | — | — | — | 9 | 9 |
| Totals of Items 1, 2, 3 and 4 | | 18 | 202 | — | 10 | 163 | 412 | 181 | 624 | 805 |
| 5. Number of patients suffering from syphilis and gonorrhoea discharged after completion of treatment and the final tests of cure, or who were diagnosed as "other conditions" | | 2 | 23 | — | 2 | 131 | 356 | 133 | 381 | 514 |
| 6. Number of patients suffering from :— | | | | | | | | | | |
| (a) Syphilis who defaulted after completion of treatment, but before final discharge | | — | 4 | — | — | — | — | — | 4 | 4 |
| (b) Gonorrhoea who defaulted before 3 months | | — | — | — | — | — | — | — | — | — |
| (c) Gonorrhoea who defaulted after 3 months | | — | — | — | — | — | — | — | — | — |
| 7. Number of patients who ceased to attend before completion of treatment and were suffering from :— | | | | | | | | | | |
| (a) Acquired syphilis of less than 1 year's duration | | — | — | — | — | — | — | — | — | — |
| (b) Acquired syphilis of more than 1 year's duration | | — | 32 | — | — | — | — | — | 32 | 32 |
| (c) Congenital syphilis (under 1 year) | | — | — | — | — | — | — | — | — | — |
| (d) " " (over 1 year) | | 1 | 7 | — | — | — | — | 1 | 7 | 8 |
| (e) Gonorrhoea | | — | — | — | 4 | — | — | — | 4 | 4 |
| 8. Number of patients under treatment or observation known to have died :— | | | | | | | | | | |
| (a) From syphilis | | — | — | — | — | — | — | — | — | — |
| (b) From treatment | | — | — | — | — | — | — | — | — | — |
| (c) From other causes | | — | — | — | — | — | — | — | — | — |
| 9. Number of patients transferred to other Centres or Institutions or to private practitioners | | 2 | 7 | — | — | — | — | 2 | 7 | 9 |
| 10. Number of patients remaining under treatment or observation on 31st December | | 13 | 129 | — | 4 | 32 | 56 | 45 | 189 | 234 |
| Totals of Items 5, 6, 7, 8, 9, and 10 | | 18 | 202 | — | 10 | 163 | 412 | 181 | 624 | 805 |
| (These totals should agree with those of Items 1, 2, 3, and 4). | | | | | | | | | | |
| 11. Number of patients included in Item 7 who failed to complete one course of treatment of either penicillin or of arsenic and bismuth and were suffering from :— | | | | | | | | | | |
| (a) Acquired syphilis of less than 1 year's duration | | — | — | — | — | — | — | — | — | — |
| (b) Acquired syphilis of more than 1 year's duration | | — | — | — | — | — | — | — | — | — |
| (c) Congenital syphilis of less than 1 year's duration | | — | — | — | — | — | — | — | — | — |
| (d) Congenital syphilis of more than 1 year's duration | | — | — | — | — | — | — | — | — | — |

| | Syphilis | | Gonorrhoea | | Other Conditions | | Totals | | |
|--|----------|-------|------------|----|------------------|-------|--------|-------|--------|
| | M. | F. | M. | F. | M. | F. | M. | F. | Totals |
| Number of attendances :— | | | | | | | | | |
| (a) for individual attention by the medical officer(s) | 161 | 2,320 | — | 33 | 553 | 1,055 | 714 | 3,408 | 4,122 |
| (b) for intermediate treatment, e.g., dressings, etc. | — | — | — | — | — | — | — | — | — |
| Total attendances | 161 | 2,320 | — | 33 | 553 | 1,055 | 714 | 3,408 | 4,122 |

| | Under 1 year | | 1 and under 5 years | | 5 and under 15 years | | 15 years and over | | Totals | |
|---|--------------|----|---------------------|----|----------------------|----|-------------------|----|--------|----|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| Number of patients suffering from congenital syphilis in Item 3 above classified according to age | — | — | — | 1 | 1 | 2 | — | 4 | 1 | 7 |

| | Microscopical | | Cultural | Serum | | †† Cerebro-spinal fluid | Others |
|--|---------------|----------------|----------|--------------|----------------|-------------------------|--------|
| | for Syphilis | for Gonorrhoea | | for Syphilis | for Gonorrhoea | | |
| Pathological work :— | | | | | | | |
| (a) Number of specimens examined at, and by the Medical Officer of, the Treatment Centre | — | — | — | — | — | — | — |
| (b) Number of specimens from patients at the Treatment Centre sent to a pathological laboratory | — | 490 | — | 945 | 85 | — | — |

| | Syphilis (less than 1 year) | | Syphilis (more than 1 year) | | Gonorrhoea | | Other Conditions | |
|---|-----------------------------|----|-----------------------------|----|------------|----|------------------|----|
| | M. | F. | M. | F. | M. | F. | M. | F. |
| Contacts attending for examination through the agency of :— | | | | | | | | |
| (a) Patients | — | — | — | — | — | — | — | — |
| (b) Health visitor or Social Service worker .. | — | 1 | — | — | — | 1 | — | 4 |
| Totals | — | 1 | — | — | — | 1 | — | 4 |

* In order to avoid duplication, patients with cardio-vascular syphilis who are also suffering from syphilis of the nervous and/or other systems should be recorded as suffering from cardio-vascular syphilis alone.

† "Syphilis, latent in first year of infection," applies to cases presenting no clinical sign of syphilis but considered (e.g. by rapid reversal of blood findings after treatment) to have contracted this disease within the preceding 12 months.

†† The number of diagnostic lumbar punctures should be given, not the number of tests carried out.

HOME NURSING SERVICE.

The general part of this Service is provided by the Manchester and Salford District Nursing Institution under an agreement between the Institution and the City Council, which commenced on 5th July, 1948, according to the terms of Section 25 of the National Health Service Act of 1946; the agreement provides for termination by either party upon giving twelve months' notice. Principal officers of the Institution are: Mr. Geoffrey Lesson, B.Sc. (Econ.), A.C.I.S., General Secretary and Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V. Cert., Queen's Nurse, Senior Superintendent of Home Nursing.

The City Council employ three special nurses for the care of premature babies, three ophthalmic nurses and one tuberculosis nurse for the home nursing of tuberculous persons resident in the City; full details of these particular portions of the service are included elsewhere in this report.

Administration of the entire Service is effected by the Health Committee through its Maternity and Child Welfare Sub-Committee, and the Medical Officer of Health is responsible to his Committee for the efficient operation of the Service. Liaison between the District Nursing Institution and the Corporation is maintained by a representative of the Institution being a member of the Maternity and Child Welfare Sub-Committee and by contacts between the appropriate professional and administrative officers.

The following information has been provided by the General Secretary of the District Nursing Institution on the general part of the Service undertaken by the Institution during the year 1951:—

A. *Nursing Staff.*

During 1951 the average number of district nurses at work was 84, of whom 67 were full-time general nursing and 17 part-time, giving an equivalent full-time average strength of 75, which represents a deficiency on establishment of 2, compared with 12 in 1950.

This figure of 75 is analysed into:—

(a) *Nursing grades—*

| | | At (1950) | 31-12-51 |
|--|----------|--------------|-----------|
| Queen's Senior Superintendent of Home Nursing .. | 1 | (1) | 1 |
| Queen's Superintendents | 4 | (4) | 4 |
| Queen's Assistant Superintendents | 3 | (4) | 2 |
| Queen's female nurses | 25 | (26) | 28½ |
| Queen's male nurses | 9 | (10) | 9 |
| Queen's student district nurses | 9½ | (5) | 16 |
| State-registered nurses | 14½ | (10) | 14½ |
| State-enrolled assistant nurses | 9 | (5) | 8½ |
| | <hr/> 75 | <hr/> (65) | <hr/> 83½ |

(b) *Accommodation—*

| | | | |
|---|----------|------------|-----------|
| Resident in large district nurses' homes under control of a Superintendent | 27 | (22) | 32 |
| Non-resident, but working from nurses' homes under control of a Superintendent | 36 | (33) | 38½ |
| Operating on "single" or "double" districts under ultimate control of Senior Superintendent | 12 | (10) | 13 |
| | <hr/> 75 | <hr/> (65) | <hr/> 83½ |

B. *Training.*

The average figure for the year of $9\frac{1}{2}$ students (referred to above) represents 19 State-registered nurses who were accepted for the six-months post-graduate training for the Queen's Roll at the Ardwick, Harpurhey, and Hulme training centres. The increase in the number of students compared with the previous year (11) is very encouraging and can be ascribed most probably to the decision in November 1950 to relieve students of the obligation to serve the Institution for twelve months after qualifying. The number of students at 31st December 1951 had risen to 16—the maximum capacity of the Training Homes.

During the year the Institution re-organised the system of theoretical training and tutoring for the Queen's Roll examination. Manchester has been the lecture centre for Training Homes in the East Lancashire region for many years. The new system consolidates the lectures and visits of observation into one month instead of spreading them out over a period of four months. The month's lecture block will be held three or four times a year, and administrative details have been agreed between the Institution and the Salford and Stockport Health Authorities. At the first block held in November 1951, 25 students entered the course from Blackburn, Bury, Rochdale, Salford, Stockport, and Manchester.

The experimental course of instruction for State-enrolled assistant nurses organised at the Bradford Home has been continued during the year and seven nurses have taken the course of instruction and been passed out. The object of the course is to give elementary instruction in district nursing to State-enrolled assistant nurses, and the scheme has proved very successful and is being continued. The Bradford Home is one of two in the country which are experimenting with this instruction.

During the year two nurses attended refresher courses organised by the Queen's Institute of District Nursing.

C. *Transport.*

At 31st December, 1951, 18 motor-cars and 8 auto-cycles were in regular use "on the district" as compared with 18 cars and 10 auto-cycles in 1950. Of these, 10 cars and 3 auto-cycles were the property of the Institution, 1 car and 1 auto-cycle the property of the Corporation. The remaining cars and auto-cycles were owned by the nurses and an allowance granted for their use on official nursing duties.

The majority of the remaining 58 nurses used bicycles although a few either walked or used public transport. It is the policy of the Institution, so far as finance allows, to provide motor-cars for the nurses. A recent survey has shown that the provision of a motor-car to a nurse who hitherto has used a bicycle enables the nurse on the average to undertake in the same period of time one-third additional nursing visits. This proportion is likely to be increased when account is taken of the very great advantage of the car over all other forms of transport in that the car driver arrives at the patient's home dry and warm in all weathers, whereas in inclement weather much time is lost by the cyclist and the walker in dealing with her wet clothing and getting warm before she can begin her nursing work.

D. *Sickroom equipment loans scheme.*

This Scheme, organised by the Institution in co-operation with the British Red Cross Society, makes available the following articles for loan to patients free :—

| | |
|--------------|--------------------------------|
| *Air beds | Hot water bottles |
| Air rings | Inhalers |
| Bed bottles | Kidney bowls |
| Bed cradles | Rubber sheets |
| Bed pans | Sputum mugs |
| Bed rests | Steam kettles |
| Bed tables | Walking sticks |
| Commodore | *Water beds |
| *Crutches | Wheel chairs |
| Feeding cups | Bed linen (in emergency cases) |

NOTE.—*A small weekly charge is made for these articles.

During the year a modification was made to the Scheme in that the District Nurses' Homes now loan out equipment only to patients being nursed by them; other patients who require loans must make their application to a depot of the British Red Cross Society.

Statistics for the year ended 4th July, 1951 :—

(1950)

| | | | |
|---|-------|---|---------|
| Total number of articles issued | 3,684 | — | (3,708) |
| Issued by district nurses | 2,392 | | (2,686) |
| Issued by Red Cross Depots | 1,292 | | (1,022) |

Patients on the books of the district nurses who received loans during the year numbered 1,335, and on the average a patient borrowed two articles of equipment.

E. *Statistics of nursing work.*

Section I.

| | | Per cent. increase on 1950 | Per cent. increase on 1948 |
|--|--------|----------------------------------|----------------------------------|
| Cases on the books 1st January, 1951 | 1,196 | 14% | 97% |
| Add—new cases during 1951 | 9,704 | 16% | 81% |
| Total cases nursed | 10,900 | 16% | 82% |
| Deduct—cases taken off books during 1951 | 9,501 | — | — |
| Cases on the books 31st December, 1951 | 1,399 | 17% | 86% |

Nursing visits paid during 1951 totalled 228,771 which was an increase of 8 per cent. on 1950 and 74 per cent. on 1948.

It will be seen that although the population covered by the nursing service increased only slightly since 1948 the nursing work has increased every year and, compared with 1948 when the National Health Service was introduced, the volume of work judged by nursing visits increased by no less than 74 per cent. This development of the work can be attributed to many factors of which the most important appear to be an increased number of old people being nursed at home; an increase in the number of injections of penicillin and other drugs, of which a certain number of cases are now passed on to the nurses which formerly were dealt with by the doctors themselves; and the fact that the service is a free one and is now more widely known by the general public.

Section II. Classification of new cases.

| | |
|--|-------|
| (1) Infectious diseases :—918 | |
| (a) Influenza | 110 |
| (b) Primary pneumonia | 311 |
| (c) Broncho pneumonia | 195 |
| (d) Measles | 29 |
| (e) Whooping cough | 9 |
| (f) Pulmonary tuberculosis | 202 |
| (g) Non-pulmonary tuberculosis | 40 |
| (h) Erysipelas | 9 |
| (i) Other notifiable diseases | 13 |
| (2) Diabetes | 199 |
| (3) Anaemias | 162 |
| (4) Bronchitis | 606 |
| (5) Other respiratory diseases | 229 |
| (6) Heart diseases | 919 |
| (7) Cancer | 607 |
| (8) Diseases of the circulatory system | 404 |
| (9) Diseases of the nervous system | 164 |
| (10) Uro-Genital | 171 |
| (11) Complication of pregnancy | 80 |
| (12) Complication following childbirth | 146 |
| (13) Other medical cases | 3,460 |
| (14) Other surgical cases : | |
| (a) Post-operative | 444 |
| (b) Varicose ulcers | 129 |
| (c) Other surgical | 1,054 |
| (15) Operations | 12 |
| Total | 9,704 |

The 9,704 new cases during 1951 were in the following age groups :—

| Age-group | New cases | Per cent. |
|---------------------|-------------|-----------|
| 0-4 | 632 | 7 |
| 5-14 | 485 | 5 |
| 15-64 | 4,506 | 46 |
| 65-74 | 2,197 | 23 |
| 75 and over | 1,884 | 19 |
| | <hr/> 9,704 | <hr/> 100 |

The above figures of new cases, however, do not give a true analysis of the age-groups of all patients nursed during the year. At any one time the proportion of patients over the age of 65 is in the region of three-fifths, as against two-fifths for new patients. Of patients nursed of age 65 and over roughly 70 per cent. are female and 30 per cent. male, and approximate proportions in the different age-groups are : 65-70 — two-fifths ; 71-80 — two-fifths ; 81 and over — one-fifth.

Section III.

Sources of reference of new cases :—

| | |
|---|-------------|
| General medical practitioners | 8,609 |
| Hospitals | 672 |
| Health Department : | |
| Maternity & Child Welfare Section | 28 |
| Health visitors | 93 |
| Tuberculosis Service | 16 |
| School Medical Service | 1 |
| Welfare Services Department | 50 |
| Personal applications | 203 |
| Others | 32 |
| | <hr/> 9,704 |

CONVALESCENT HOMES SECTION.

Adults referred to convalescent homes numbered 166 in 1951, compared with 147 in the previous year. 135 persons were sent to the West Hill Convalescent Home in Southport, 11 to the Lear Home of Recovery in West Kirby, 16 to the Blackburn and District Convalescent Home in Lytham St. Annes and 4 to the Margate Holiday Home of the Jewish Blind Society.

56 recommendations for convalescence were cancelled during the year ; details of these are as follows :—

| | |
|---|-------|
| (a) Cancelled by doctor—patient unfit to travel.. .. . | 6 |
| (b) Cancelled by the person concerned—unable to await a vacancy at a convalescent home | 28 |
| (c) Persons not keeping appointments | 22 |
| | <hr/> |
| Total | 56 |

In addition to the adult convalescents referred to above, some children are sent to the Dr. Garrett Memorial Home in Conway, North Wales, which is administered by the Health Committee, whilst other children are covered by the provisions of the Education Committee.

Details relating to the Dr. Garrett Memorial Home are included in another part of this report,

DOMESTIC (HOME) HELP SERVICE.

The total establishment of Home Helps was 60 full-time female employees holding superannuable appointments ; this figure is the same as the previous year.

The number of Helps employed at 1st January, 1951 was 54, 27 were recruited and 23 left the service during the year leaving 58 employed at 31st December. The average number employed during the year was 57.

Co-ordination of the service is effected by the Organizer, who by the use of her own motor car for transport purposes, financed by the Committee, visits the homes of persons receiving assistance and supervises the work of the Helps.

Another slight increase in the user of the service was experienced, compared with previous years ; this was mainly due to the extension of part-time service in cases of sickness, old age or infirmity.

During the year, applications for assistance were received from 1,402 households ; 564 of these were in cases following confinement and the remaining 838 were cases of sickness, old age or infirmity. Outstanding applications from 1950 numbered 104.

Sources of application for assistance during 1951 were as follows :—

| Source | No. in cases following confinement | No. in cases of sickness, old age, etc. | Totals |
|--|------------------------------------|---|--------|
| Personal application (by letter, telephone, or visit to the office by applicant or a representative) | 349 | 519 | 868 |
| Child welfare centre, health visitor, or midwife | 172 | 108 | 280 |
| Hospital almoner | 42 | 78 | 120 |
| Medical practitioner | 1 | 76 | 77 |
| Tuberculosis Centre | — | 28 | 28 |
| District Nursing Association | — | 16 | 16 |
| Welfare Services Department | — | 7 | 7 |
| National Assistance Board | — | 6 | 6 |
| Totals | 564 | 838 | 1,402 |

Of the applications, 688 were cancelled by the persons concerned or no actual request for help materialized after the first application had been made,

The number of households assisted during the year was 722, of which 252 were in households where a confinement had occurred and 470 where there were cases of sickness, old age or infirmity. Of the latter number, 136 cases were assisted on more than one occasion so that the number of such cases assisted over the year was 747, making a grand total of 999 occasions when help was given. Full-time help was given to cases of sickness and old age on 258 occasions and part-time assistance on 489 occasions. At the close of 1951, 96 cases were registered as requiring attention during 1952.

The average time spent by the Helps on cases was three weeks.

Contributions towards the cost of the service are recovered from householders assessed according to authorised scales of assessment which are based on the recommendations made by the Association of Municipal Corporations.

The following table indicates the distribution of cases assisted in 1951 throughout the various districts of the City and, also, the numbers of Helps residing in such districts :—

| Districts | Type of case assisted | | | | | | Distribution of helps at 31st December 1951 | |
|---------------------------------------|-----------------------|-------|-----------------------|-------|-------|-------|---|------|
| | Following confinement | | Sick and aged persons | | Total | | | |
| Wythenshawe.. .. . | 62 | (62) | 99 | (73) | 161 | (135) | 10 | (7) |
| Didsbury, Fallowfield, and Withington | 44 | (54) | 91 | (109) | 135 | (163) | 10 | (6) |
| Blackley, Moston, and New Moston .. | 19 | (50) | 96 | (70) | 115 | (120) | 5 | (4) |
| Burnage, Longsight, and Levenshulme | 25 | (33) | 86 | (64) | 111 | (97) | 8 | (9) |
| Chorlton-cum-Hardy, and Whalley Range | 28 | (26) | 57 | (48) | 85 | (74) | 3 | (2) |
| Abbey Hey, Ardwick, and Gorton .. | 6 | (12) | 72 | (74) | 78 | (86) | 5 | (8) |
| Moss Side and Rusholme | 17 | (24) | 59 | (46) | 76 | (70) | 6 | (7) |
| Bradford, Clayton, and Openshaw .. | 9 | (9) | 55 | (47) | 64 | (56) | 4 | (3) |
| Chorlton-upon-Medlock and Hulme .. | 12 | (14) | 35 | (32) | 47 | (46) | 2 | (3) |
| Ancoats, Collyhurst, and Harpurhey.. | 5 | (10) | 39 | (29) | 44 | (39) | 2 | (2) |
| Miles Platting and Newton Heath .. | 7 | (14) | 25 | (26) | 32 | (40) | — | (1) |
| Cheetham | 7 | (10) | 24 | (8) | 31 | (18) | 1 | (—) |
| Crumpsall | 11 | (14) | 9 | (11) | 20 | (25) | 2 | (2) |
| Totals | 252 | (332) | 747 | (637) | 999 | (969) | 58 | (54) |

NOTE.—Figures in parentheses relate to the previous year, 1950, and are included for purposes of comparison.

LANGHO COLONY FOR EPILEPTICS.

By Dr. G. A. Thompson, Medical Superintendent.

STAFF.

Full time—

G. A. Thompson, M.R.C.S., L.R.C.P. Medical Superintendent.

Miss E. J. Smith, S.R.N., R.M.P.A., R.M.N. Matron.

S. A. C. Bunn, A.H.A., F.C.C.S. Secretary-Steward.

On the 31st December, 1951, there were maintained in the Colony 285 male and 284 female Colonists, of whom 230 were chargeable to the Manchester Corporation and 339 to other Authorities, as under :—

County Boroughs.

County Councils.

| | | | | | | | | | |
|-------------------|----|----|----|----------|-------------------------|------|----|----|-----|
| Barrow-in-Furness | .. | .. | 1 | Cheshire | .. | .. | .. | .. | 11 |
| Birmingham | .. | .. | .. | 9 | Durham | .. | .. | .. | 1 |
| Blackburn | .. | .. | .. | 23 | East Suffolk | .. | .. | .. | 4 |
| Blackpool | .. | .. | .. | 14 | Glamorgan | .. | .. | .. | 3 |
| Bolton | .. | .. | .. | 8 | Lancashire | .. | .. | .. | 139 |
| Bootle | .. | .. | .. | 2 | Leicester | .. | .. | .. | 1 |
| Bradford | .. | .. | .. | 2 | Middlesex | .. | .. | .. | 6 |
| Burnley | .. | .. | .. | 13 | Monmouth | .. | .. | .. | 1 |
| Croydon | .. | .. | .. | 2 | Surrey | .. | .. | .. | 10 |
| Dewsbury | .. | .. | .. | 1 | Worcester | .. | .. | .. | 1 |
| Halifax | .. | .. | .. | 1 | Yorkshire, North Riding | .. | .. | .. | 2 |
| Ipswich | .. | .. | .. | 2 | Yorkshire, West Riding | .. | .. | .. | 8 |
| Leeds | .. | .. | .. | 5 | | | | | |
| Lincoln | .. | .. | .. | 2 | | | | | |
| Liverpool | .. | .. | .. | 22 | | | | | 187 |
| Oldham | .. | .. | .. | 2 | | | | | |
| Preston | .. | .. | .. | 6 | | | | | |
| Salford | .. | .. | .. | 28 | | | | | |
| Southampton | .. | .. | .. | 1 | | | | | |
| Southport | .. | .. | .. | 1 | Total : | 339. | | | |
| Stockport | .. | .. | .. | 2 | | | | | |
| Wallasey | .. | .. | .. | 1 | | | | | |
| Warrington | .. | .. | .. | 3 | | | | | |
| Wigan | .. | .. | .. | 1 | | | | | |

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The total number of epileptic seizures during the year was 28,064.

| | Severe | Slight | Total | Average | Numbers maintained |
|----------------|--------|--------|--------|---------|--------------------|
| Male | 9,044 | 6,995 | 16,039 | 56 | 285 |
| Female | 6,368 | 5,657 | 12,025 | 42 | 284 |
| Totals | 15,412 | 12,652 | 28,064 | .. | 569 |

The classification of the incidence of seizures during the year is, as follows :—

| | Male | Female |
|-------------------------------------|------|--------|
| Status epilepticus | Nil | 5 |
| Decreased incidence | 55 | 31 |
| Increased incidence | 36 | 9 |
| No change | 111 | 195 |
| No seizures during the year | 42 | 45 |

There were :—

| | Male | Female | Totals |
|-----------------------|------|--------|--------|
| Admissions | 59 | 32 | 91 |
| Re-admissions | 17 | 18 | 35 |
| Discharges | 40 | 17 | 57 |
| Deaths | 8 | 11 | 19 |

Treatment at other hospitals and clinics for :—

| | Male | Female |
|---|------|--------|
| Blackburn Royal Infirmary :— | | |
| Fractures Department | 22 | 43 |
| Orthopaedic Department | 4 | 5 |
| Physiotherapy Department | 1 | 1 |
| Casualty Department | 2 | 2 |
| Surgical Department | 7 | 13 |
| Eye Department | 3 | 2 |
| Skin Department | 4 | 4 |
| X-rays Department | 1 | — |
| Radiotherapy Department | 2 | 6 |
| Medical Department | 1 | 1 |
| Gynaecology Department | — | 3 |
| Psychiatry Department | — | 1 |
| Operative treatment | 4 | 6 |
| Surgical appliances, etc. | 6 | 7 |
| Queen's Park Hospital, Blackburn :— | | |
| Operative treatment | 1 | — |
| Accrington Victoria Hospital | 1 | 1 |
| Manchester Royal Infirmary :— | | |
| Fractures Department | — | 1 |
| Hearing Aid Department | 1 | — |
| Manchester Dental Hospital | 1 | — |
| Manchester Eye Hospital | 1 | — |
| Ministry of Pensions (Quay Street, Manchester) :— | | |
| Artificial limbs | 1 | 1 |
| Wythenshawe Hospital :— | | |
| Plastic Unit | 2 | 2 |
| Preston Hearing Aid Centre | — | 1 |
| Transfers to :— | | |
| Burnley General Hospital (Mental Ward) | 1 | — |
| Prestwich Mental Hospital | 1 | — |
| Queen's Park Hospital (Mental Ward) | 1 | 1 |
| Storthes Hall Mental Hospital, Kirkburton | 1 | — |
| Whittingham County Mental Hospital | 1 | 2 |

The employment of Colonists on 31st December, 1951, was as follows :

| | Male | Female |
|---|------|--------|
| Domestic—the homes, etc. | 98 | 100 |
| Domestic—Administrative block | 10 | 14 |
| Laundry | 4 | 22 |
| General kitchen | 2 | 10 |
| Sewing room | 9 | 32 |
| Grounds and coal yard | 60 | — |
| Engineers' department | 2 | — |
| Clerk of Works department | 3 | — |
| Shoemakers' department | 2 | — |
| Light duties in the homes | 32 | — |
| Office and general stores | 7 | — |
| Farms | 15 | — |
| Kitchen garden | 6 | — |
| Elderly, infirm or otherwise unemployable | 35 | 106 |
| Totals | 285 | 284 |

Remarks.

During the year the general health of the Colonists continued to be satisfactory, and there were never more than half a dozen permanent bed cases although the number in bed on any one day tended to fluctuate considerably.

All Colonists capable of work were occupied as much as possible, and the Occupational Therapy Department continued to make progress although still handicapped by lack of space.

The staffing position showed some improvement although, on the female side, we still have to depend to a large extent on part-time nurses and attendants.

Church services for the various religious denominations were held regularly during the year, and in April, 1951, a Confirmation Service was conducted by the Lord Bishop of Blackburn when six Church of England Colonists were confirmed.

The usual sporting activities were indulged in by the Colonists during the year, and there was a cricket or football match against an outside team almost every Saturday. Cinema shows, Concerts and Dances were held regularly for the benefit of the Colonists and were very much appreciated, including the annual trip to the seaside and the Annual Sports Day.

During the year, a new Netball pitch was laid on the female side, and a Trefoil Guild was commenced by the Girl Guides for the benefit of the more elderly female Colonists.

Steady progress was made in the modernisation of the Homes, including the provision of hot plates and steam geysers and more modern furnishings.

The herd of cattle on the Colony Farms has been inspected and registered by the Ministry of Agriculture and Fisheries as an "Attested Herd," and the Corporation has been authorised by licence to use the special designation "Tuberculin Tested" in relation to the milk produced.

In November last, a visit was paid to the Colony by a Commissioner of His Majesty's Board of Control who expressed himself well satisfied with the administration and general conduct of the Colony, and also passed comment on the value of the work that was done here.

In conclusion, I would like to thank the Matron, the Secretary-Steward and all members of the Staff for the support they have given to me during the past year.

DR. GARRETT MEMORIAL HOME.

By H. Fisher, Secretary-Steward.

On the 1st January, 1951, 90 children were in residence.

The total number of admissions during the year was 611, an increase of 174 as compared with the previous year.

Discharges numbered 593, an increase of 190, as compared with the previous year.

The number remaining on the 31st December, 1951, was 108, an increase of 18 as compared with the same date in 1950.

The following is a summary of the diagnoses prior to admission :—

| | |
|--|-----|
| Debility | 216 |
| Anaemia | 72 |
| Diseases of the respiratory system | 139 |
| Rheumatic and cardiac disease | 24 |
| Chorea | 7 |
| Nervous debility | 61 |
| Post appendectomy | 10 |
| Post pneumonic debility | 12 |
| Post scarlet fever | 6 |
| Post measles | 2 |
| Post chicken-pox | 2 |
| Post tonsillectomy | 2 |
| Blepharitis and allied conditions | 6 |
| Malnutrition | 15 |
| Fractures | 3 |
| Recurrent boils | 3 |
| Miscellaneous | 31 |
| Total | 611 |

Of the 593 children discharged, 539 were recorded as “ fit,” 52 “ improved ” and 3 requiring “ further hospital treatment.”

574 gained weight, one lost weight, and 18 remained unchanged.

During residence 297 children received medical and nursing treatment for the following :—

| | | | |
|--|----|-----------------------------|----|
| Asthma | 2 | Measles | 1 |
| Boils, styes, septic sores | 30 | Otorrhoea | 7 |
| Bronchitis and bronchial pneumonia | 10 | Rubella | 33 |
| Bruises, cuts, sprains | 22 | Scabies | 1 |
| Catarrhal jaundice | 17 | Scarlet Fever | 3 |
| Chicken pox | 11 | Skin conditions | 18 |
| Conjunctivitis | 4 | “ Sonne ” dysentery | 1 |
| Coryza and coughs | 36 | Threadworms | 3 |
| Dental abscess and toothache | 5 | Tonsillitis | 57 |
| Influenza | 21 | Miscellaneous | 13 |
| Injuries to limbs | 2 | | |

General Remarks.

The appointment of three children’s wardens, in replacement of teaching staffs, for the latter half of the year proved to be of benefit to the children. Additional outdoor recreation was provided and appetites improved. Handicrafts have been introduced, and a games room fitted out, and both are a source of enjoyment during bad weather. Musical games, dancing, film shows, and magic provided by the Senior Warden, keep the children occupied and happy.

The period of stay has been reduced from 8 to 12 weeks to 6 weeks ; consequently more children are receiving convalescent treatment, 277 being admitted January to June and 334 July to December.

The highest number maintained was 134 on the 9th October, and the lowest number 82 on the 11th February, 1951.

Absence without permission occurred on three occasions, an increase of one occasion over last year.

The recruitment of State Registered Nurses was remarkably poor.

Young children's attendants have been engaged and, after 12 to 18 months, have left to enter the nursing profession. All have done well and state that the tuition and experience gained here has proved very useful to them.

Domestic staff has been satisfactorily maintained throughout the year.

The provision of a larder and refrigerator under cover, a store provided for medicine and dressings, and additional toilets for children and staff are a great improvement. The service hatchway to the Staff dining room is another improvement.

All buildings have been maintained in good condition.

The year has been a busy one, which is to be expected where a constant change of children is concerned. Sickness, staffing difficulties, birthdays and festivities in their turn provide anxious and pleasurable days respectively. Finally, the year closed amidst structural alterations and Christmas festivities, the former necessary and the latter most enjoyable, for wherever children are there should always be enjoyment.

AMBULANCE AND TRANSPORT SERVICE.

By G. Marron, A.M.I.Mech.E., M.I.E.I., F.I.M.I., Manager.

The Manchester Ambulance Service operates a comprehensive service under the National Health Service Act, 1946. Prior to unification taking place there were operating in Manchester four separate Ambulance Services, i.e., Health, Police, Social Welfare and E.M.S. As from the 5th July, 1948, the four separate services were unified and now operate as the Manchester Ambulance Service, and it is of interest to show the operational statistics with regard to these four services during the last year before unification in comparison with the period under review.

| | No. of Journeys | No. of Patients removed | Mileage | No. of ambulances | No. of Sitting case vehicles |
|--------------------------------|-----------------|-------------------------|---------|-------------------|------------------------------|
| Health | 2,466 | 2,732 | 59,618 | 7 | — |
| Social Welfare | 25,436 | 26,540 | 228,619 | 17 | 2 |
| Police | 6,036 | 5,866 | 26,161 | 9 | — |
| E.M.S. | 2,674 | 3,734 | 137,431 | 8 | 8 |
| | 36,612 | 38,872 | 451,829 | 41 | 10 |
| 1951— Unified Service | 80,656 | 130,461 | 810,915 | 53 | 9 |

The ambulance transport fleet consists of 53 ambulances, five “ shooting brake ” type vehicles and four sitting case cars, the disposition of which is as follows :—

| | | |
|--------------------------------|---------|------------------------------------|
| Belle Vue Street (Main Garage) | .. | 26 ambulances. |
| | | 2 saloon cars (sitting cases). |
| Crumpsall | .. .. . | 2 ambulances. |
| | | 1 shooting brake (sitting cases). |
| Monsall | .. .. . | 6 ambulances. |
| Deansgate | .. .. . | 6 ambulances. |
| Withington | .. .. . | 5 ambulances. |
| Wythenshawe | .. .. . | 2 ambulances. |
| Chorlton | .. .. . | 6 ambulances. |
| | | 4 shooting brakes (sitting cases). |
| | | 2 saloon cars (sitting cases). |

At the end of August, two saloon cars, used for sitting cases, were taken out of service as being no longer road-worthy.

All requests for ambulance transport are received at the Headquarters of the Service, Belle Vue Street, including “ 999 ” emergency calls, and such calls are operated either from the Main Garage, or are redirected to the appropriate Sub-depot. All Sub-depots are connected to Headquarters by direct telephone lines.

The reduction in operating mileage outside Manchester has been maintained, as a result of Section 24 of the National Health Service (Amendment) Act, 1949. This reduction has to a great extent been counter-balanced by an increase in mileage operated on district work as the following table shows :—

| | Operating mileage | Mileage outside Manchester | No. of calls | No. of patients removed |
|--------------|----------------------|----------------------------------|-----------------|-------------------------------|
| 1949 | 815,142 | 152,247 | 77,888 | 104,726 |
| 1950 | 768,777 | 36,824 | 82,549 | 116,658 |
| 1951 | 810,915 | 18,297 | 80,656 | 130,461 |

OPERATIONAL RECORD.

| | No. of calls | Patients removed | Mileage |
|----------------|--------------|------------------|---------|
| January | 6,980 | 11,506 | 71,133 |
| February | 6,085 | 10,002 | 62,471 |
| March | 6,714 | 10,818 | 69,350 |
| April | 6,398 | 11,122 | 68,778 |
| May | 6,567 | 11,318 | 68,998 |
| June | 6,216 | 10,935 | 68,075 |
| July | 6,869 | 11,304 | 71,419 |
| August | 6,601 | 10,297 | 65,956 |
| September .. | 6,550 | 10,246 | 63,263 |
| October | 7,317 | 11,339 | 70,760 |
| November | 7,148 | 10,985 | 66,370 |
| December | 7,211 | 10,589 | 64,342 |
| | 80,656 | 130,461 | 810,915 |

Of this total 614 patients not normally resident in Manchester were conveyed over distances totalling 18,297 miles, which is 2.256 per cent. of the total mileage operated by the ambulances. 43 journeys, conveying 49 patients, were made of over 100 miles return.

ANALYSIS OF REMOVALS.

| | Accidents | General | Infectious |
|----------------|-----------|---------|------------|
| January | 634 | 10,233 | 639 |
| February | 527 | 8,923 | 552 |
| March | 599 | 9,650 | 569 |
| April | 562 | 9,910 | 650 |
| May | 716 | 9,936 | 666 |
| June | 636 | 9,659 | 640 |
| July | 666 | 9,907 | 731 |
| August | 627 | 9,022 | 648 |
| September .. . | 633 | 8,953 | 660 |
| October | 676 | 9,942 | 721 |
| November | 600 | 9,788 | 597 |
| December | 732 | 9,272 | 585 |
| | 7,608 | 115,195 | 7,658 |
| Total | 130,461 | | |

Distribution of Calls.

During 1951, some 80,656 requests for ambulance transport were received and the following indicates the nature of the calls. These requests include, in the case of out-patients, the transport of more than one patient per ambulance.

| | |
|--------------------|--------|
| Accidents | 7,798 |
| General | 69,014 |
| Infectious | 3,844 |

The increased demand for ambulance transport is still being maintained and the present resources of the service are at times overtaxed. This refers especially to the transport of out-patients. The number of out-patients using this service during the period under review was 88,568 as against 80,147 during 1950.

The Hospital Authorities and General Practitioners are again requested to reduce calls to the minimum and to ensure that ambulance transport is only ordered for patients where there is a genuine need.

Patients from H.M. Prison Hospital, Strangeways, due for removal to other prison hospitals in the country, are the responsibility of this service. During the year there were no removals.

During the year nine new ambulances were delivered and put into service. This enabled a similar number of vehicles to be written off as they were no longer road-worthy. The average age of the ambulance fleet is 5.8 years.

Transport of Out-Patients.

One Spurling Transit Ambulance was purchased during the year. The service operates five vehicles of this design and they are used exclusively for the transport of out-patients to meet the need of some of these patients who are handicapped by plastercasts, splints, etc. Each of these vehicles has a carrying capacity of 10 patients and some patients are accompanied by escorts. This loss of patient seats per journey is very important to the service, and often entails additional journeys in order to complete the operational programme. This in turn may cause patients to be late on arrival at the hospitals.

Throughout the period under review the Medical and First-Aid Equipment carried in the ambulances has been continually supplemented so that it can meet all anticipated requirements.

Removal of Infectious Cases.

1,619 cases of infectious disease, other than tuberculosis, were removed to Monsall Hospital, and 91 cases were removed to outside hospitals, chiefly Ladywell. 323 patients were discharged to home addresses and other institutions, a total of 2,033 cases being removed. In addition, there were 453 tuberculosis patients removed to sanatoria and 5,172 out-patients conveyed to clinics and sanatoria for treatment.

Municipal Car Pool.

In addition to the Ambulance Service, the Municipal Car Pool, consisting of 10 saloon cars, is operated from the main garage at Belle Vue Street. The cars are utilised for Committees and officials of the various Corporation departments. The mileage operated in this section during 1951 was 127,226 miles as against 172,516 miles operated during the corresponding period in 1950.

Maintenance and major repairs to the fleet are undertaken at the Deansgate Sub-depot; minor repairs are carried out at Monsall and Belle Vue Street respectively. This arrangement eases the flow of vehicles for maintenance at the Deansgate workshop. The drivers with their attendants service their own vehicles in accordance with operated mileage. The Sanitary Inspectors' cars are maintained and serviced at the Deansgate Sub-depot.

Hospital Car Service.

The Hospital Car Service which is administered by the local branch of the Women's Voluntary Services on behalf of the Manchester Ambulance Service, continues to augment the Ambulance Service, and is mainly concerned with the transfer of sitting cases to and from hospitals within the City for out-patient treatment, and in-patients on discharge from hospitals within the City to their homes.

During 1951 an average of 16 drivers were utilised each month. The 16 drivers made 8,209 journeys and removed 17,888 patients, the operating mileage being 126,818.

The following table shows the monthly operational record of this service :—

| 1951 | Number of Drivers | Number of Journeys | Number of Patients removed | Total Mileage |
|---------------------------|-------------------|--------------------|----------------------------|---------------|
| January.. .. . | 15 | 654 | 1,446 | 9,516 |
| February | 14 | 630 | 1,388 | 10,232 |
| March | 15 | 618 | 1,417 | 9,600 |
| April | 16 | 651 | 1,466 | 10,355 |
| May | 16 | 715 | 1,580 | 11,176 |
| June | 17 | 771 | 1,596 | 11,305 |
| July | 17 | 734 | 1,603 | 11,329 |
| August | 14 | 724 | 1,575 | 11,924 |
| September | 14 | 703 | 1,545 | 10,165 |
| October | 16 | 736 | 1,493 | 11,186 |
| November | 16 | 711 | 1,545 | 10,998 |
| December | 16 | 562 | 1,234 | 9,032 |
| Totals .. .. . | .. .. . | 8,209 | 17,888 | 126,818 |
| Corresponding totals 1950 | .. .. . | 7,761 | 16,781 | 129,060 |

Commercial Vehicles.

During the period under review, six commercial vehicles consisting of four lorries and two vans were employed. These vehicles are hired to other departments of the Corporation and the mileage operated was 70,872 miles against 59,803 miles operated during 1950.

Bedding and General Disinfection Service.

A service is provided at Monsall Disinfecting Station for the disinfection of clothing and bedding. For the disinfection of the latter, two steam disinfectors are installed. For articles which cannot be subjected to steam, disinfection by formalin is carried out in a chamber built for the purpose. Two bedding vans are employed on the collection and return of bedding and clothing, etc. and during 1951 removed for disinfection 13,632 articles, and 661 library books, necessitating a mileage of 13,159. In addition to the above, 640 articles of second-hand clothing and 738 bales of cotton waste have been disinfected for export.

Articles disinfected at Monsall Disinfecting Station.

| | Blankets | Sheets | Pillows | Bolsters | Quilts | Mattresses | Beds | Carpets | Articles of Clothing | Sundry articles | Totals |
|----------------|----------|--------|---------|----------|--------|------------|------|---------|----------------------|-----------------|--------|
| January | 229 | 99 | 325 | 61 | 27 | 142 | 85 | 1 | 393 | 784 | 2,156 |
| February | 182 | 102 | 278 | 60 | 23 | 172 | 119 | 1 | 439 | 297 | 1,673 |
| March | 112 | 63 | 198 | 34 | 11 | 109 | 93 | 1 | 756 | 273 | 1,650 |
| April | 71 | 58 | 101 | 6 | 9 | 52 | 20 | — | 480 | 189 | 986 |
| May | 332 | 57 | 92 | 6 | 11 | 61 | 10 | 3 | 386 | 221 | 1,179 |
| June | 423 | 27 | 79 | 3 | 8 | 120 | 17 | — | 582 | 279 | 1,538 |
| July | 21 | 31 | 64 | 1 | 132 | 51 | 11 | — | 428 | 180 | 919 |
| August | 26 | 23 | 41 | — | 59 | 54 | 13 | — | 518 | 200 | 934 |
| September .. | 39 | 31 | 58 | 4 | 2 | 29 | 13 | — | 514 | 263 | 953 |
| October | 72 | 46 | 85 | 10 | 54 | 53 | 10 | — | 593 | 145 | 1,068 |
| November .. | 93 | 49 | 101 | 9 | 65 | 60 | 6 | — | 803 | 437 | 1,623 |
| December .. | 44 | 33 | 77 | 1 | 9 | 53 | 1 | — | 542 | 232 | 992 |
| | 1,644 | 319 | 1,509 | 195 | 410 | 956 | 398 | 6 | 6,434 | 3,500 | 15,671 |

Steam Disinfector 13,654 articles.
Formic Aldehyde Chamber 1,356 mattresses.
Formic Aldehyde Chamber 661 books.

Total 15,671

Mobile Immunisation Unit.

This vehicle, which is a converted motor omnibus saloon, operates every weekday touring various parts of the City and provides facilities for immunization against diphtheria. It operates with a staff of a doctor, nurse, recording clerk and driver. The vehicle is garaged, maintained and serviced at Monsall Sub-depot. The operating mileage during the year 1951 was 9,626 as against 8,367 miles operated during 1950.

Operating Mileage.

| | 1951 | 1950 |
|-----------------------------|-----------|-----------|
| Ambulance fleet | 810,915 | 768,777 |
| Municipal car pool | 127,226 | 172,516 |
| Commercial vehicles | 70,872 | 59,803 |
| Bedding vans | 13,159 | 18,929 |
| Immunization unit | 9,626 | 8,367 |
| | 1,031,798 | 1,028,392 |

Cleansing Clinic.

The Cleansing Clinic at Monsall Sub-depot deals with the following types of personal cleansing, viz. :—

- (a) the treatment of scabies in adults and children.
- (b) the disinfestation of persons before removal to Corporation houses, and
- (c) the cleansing of verminous persons, both voluntary and compulsory.

The following table shows the number of treatments in their various classifications :—

| 1951 | Scabies | Voluntary cleansing | Compulsory cleansing | Disinfestations | Total |
|------------------------------------|---------|---------------------|----------------------|-----------------|-------|
| January | 12 | 55 | 15 | Nil | 82 |
| February | 36 | 58 | 19 | " | 113 |
| March | 20 | 60 | 17 | " | 97 |
| April | 35 | 47 | 9 | " | 91 |
| May | 22 | 45 | 17 | " | 84 |
| June | 46 | 59 | 20 | " | 125 |
| July | 12 | 40 | 21 | " | 73 |
| August | 54 | 63 | 3 | " | 120 |
| September | 60 | 58 | 49 | " | 167 |
| October | 76 | 54 | 30 | " | 160 |
| November | 60 | 76 | 45 | " | 181 |
| December | 40 | 48 | 14 | " | 102 |
| Totals | 473 | 663 | 259 | Nil | 1,395 |
| Corresponding Totals, 1950 | 662 | 508 | 164 | 154 | 1,488 |

MENTAL HEALTH SERVICE.

Introduction.

This section of the report deals with the administration of the Medical Deficiency Acts, 1913-1938 and the Lunacy and Mental Treatment Acts, 1890-1930, as amended by the National Health Service Act, 1946. It covers the year 1951 and includes information requested by the Ministry of Health in Circular 42/51.

On the 31st December, 1951, there were 2,249 mental defectives known to the Service and 2,395 persons of unsound mind from Manchester were in mental hospitals. These figures give a recorded incidence of 3·22 per 1,000 of the population for mental deficiency and 3·42 per 1,000 of the population expresses what may be called the hospital admission rate for persons of unsound mind.

The true incidence of mental disorder cannot be estimated as many cases, treated perhaps at home by their own medical attendants or in psychiatric out-patient clinics, do not come to the knowledge of the Service at all. The prevalence of mental ill-health, ranging from mild neurosis to the more pronounced psychotic states is, however, far more pronounced than is generally recognized; its effects are far-reaching and have their repercussions in every aspect of community life and at every stage in individual development.

In a recent industrial survey, Russell Fraser (1947) estimated that 10 per cent. of the workers (9·1 per cent. male and 13·0 per cent. female) had suffered from definite and disabling neurotic illness, and a further 20 per cent. (19·2 per cent. male and 23·0 per cent. female) from minor forms of neurosis. Neurosis caused between 25 and 33 per cent. of the absence from work due to illness and, according to Blacker (1946), some industrial medical officers put this figure as high as 75 per cent.

Curran and Guttman (1949) also stress the inadequacy of our present knowledge of the incidence of mental ill-health. Frequently the minor forms of disorder are found masquerading as physical disease, insufficiently severe to require hospital care but potent causes, nevertheless, of personal misery and social inefficiency. They cite instances of a medical specialist in the Army who made a diagnosis of neurosis in 281 out of 810 patients referred to him for an opinion (28·5 per cent.); of a general practitioner in suburban London who considered that similar troubles accounted for 30 per cent. of all his attendances, and of a medical referee in the industrial Midlands who considered that 10 per cent. of his cases presented purely psychiatric problems and an additional 14·5 per cent. suffered from psycho-somatic disorders with an undoubted neurotic component.

According to the Registrar-General's Statistical Review, there were 4,720 suicides and 185 homicides in England and Wales in 1949. There are now ten times as many divorces as there were 20 years ago, and it has been estimated that out of every nine marriages one will end in divorce or separation. According to the Lord Chancellor in a debate in the House of Lords on the 25th March, 1952, there were 1,076 convictions for cruelty to children in 1951; convictions for crimes of violence (1,315 in 1938) rose to 3,388 in 1950.

References—Blacker, C. P. (1946) *Neurosis and the Mental Health Services*, p. 32. Oxford.
 Curran, D. and Guttman, E. (1949) *Psychological Medicine*, p. 2. Livingstone.
 Fraser, R. (1947) *The Incidence of Neurosis among Factory Workers*. M.R.C. Industrial Health Research Board Report, No. 90. p. 4.

These are statistics that cannot be ignored. They furnish evidence of the mental outlook of the society in which we live; a society not altogether mentally sick but certainly subject to considerable emotional wear and tear. Why is it that approximately five thousand people a year give up the struggle with life? Why is it that one marriage in every nine breaks down? The answers to questions of this kind should be persistently pursued by all engaged in mental health, for it is only as a result of obtaining an understanding of the motives of human behaviour that our community mental health services will be improved. Understanding is necessary for progress and progress is essential to the development of a well-balanced and efficient service.

Administration.

Mental Health Sub-Committee.

The City Council operates the Service through the Health Committee and a Mental Health Sub-Committee has been established consisting of 16 members, including a co-opted representative of the Manchester and Salford District Nursing Institution. The Sub-Committee meets each month and deals with all matters arising out of the Council's proposals under the National Health Service Act, 1946, relating to mental health, with the exception of staff appointments, salaries, wages, and conditions of service. The Sub-Committee has no delegated powers and all its proceedings are subject to confirmation by the Health Committee and the City Council.

Staff.

The medical direction and day-to-day administration of the Service is the responsibility of the Medical Officer of Health through the Senior Assistant Medical Officer of Health and the Administrative Assistant for Mental Health. The Medical Officer of Health has been approved by the Minister of Health for the purpose of making recommendations for voluntary and temporary treatment under the Mental Treatment Act, 1930, and he is also authorized by the local health authority, as are the Deputy and Senior Assistant Medical Officers of Health, to give medical certificates accompanying petitions to judicial authorities for Orders under the Mental Deficiency Acts, 1913-1938.

Five mental health visitors, all experienced social workers, are employed to supervise the domiciliary care and progress of the mentally defective; three are qualified in mental or mental deficiency nursing and two of these are also state registered nurses. Three duly authorised officers have been appointed to take initial proceedings in providing care and treatment for persons suffering from mental illness and a 24 hour a day service is maintained in order to deal with emergencies that occur outside normal office hours.

In October, 1951, the department was fortunate in securing the services of a qualified psychiatric social worker to replace the one that had resigned for domestic reasons.

The number of staff employed in the Occupation Centres is given in Table VII on page 119. The Supervisors of the Ancoats and Victoria Park Centres hold the diploma of the National Association for Mental Health.

Co-ordination with Hospitals.

Shortage of accommodation.

There is a grave shortage of hospital accommodation for mental defectives in the North-West. This is largely due to inadequate recruitment of nursing staff, which in some hospitals has resulted in the closing down of beds that could otherwise be occupied.

The turnover of beds in mental deficiency hospitals is slow; vacancies occur far more infrequently than in general or even mental hospitals. This, and the fact of improved ascertainment by local health authorities, is rapidly increasing the number of patients whose names have been placed on the regional hospital board's waiting list for hospital admission. Some very serious social problems are being created by the continued lack of accommodation even in urgent cases and very often vacancies can only be obtained after offences have been committed and proceedings have been taken in the courts.

The local health authority is altogether in the hands of the regional hospital board so far as the allocation of hospital beds is concerned. When a patient becomes suitable for hospital admission, he is medically examined and a report on his mental and physical state is sent to the hospital board's headquarters. The degree of priority is awarded according to individual circumstances and a request for a vacancy is made. The department's medical reports are then circulated by the board to the mental deficiency hospitals in the region and, when vacancies occur, the medical superintendents of the hospitals inform the department which patients can be admitted.

This system has worked fairly well. Despite harmonious relations between officers of the department and the board, there have been occasions, however, when it has appeared to operate unfairly. Amongst patients suffering from comparable disabilities, one, for example, has been offered a vacancy when the department has considered that the circumstances of others, some of whom may have been waiting for considerably longer periods, were far more deserving.

There is much to be said for greater co-operation between hospitals and local health authorities in the selection of patients for admission to the very limited accommodation that mental deficiency hospitals can at present provide. It should not rest entirely in the hands of the medical superintendent of a hospital to decide which patient should be selected for any vacancy. Full regard should be paid to the patient's needs, his condition, his home circumstances, the effect his disorders of behaviour may be having on other members of the household and the length of time he has been waiting for a vacancy.

The National Health Service Act, 1946, adopted the principle that one authority should be responsible for institutional treatment and the management of hospitals and that another should deal with the patient's domiciliary care. In the interests of the patient, at least whilst mental deficiency accommodation remains so limited, it is only right that the domiciliary authority, from their more intimate knowledge of their patients' circumstances and requirements, should have a greater say in how the few vacancies that do occur should be filled.

Seventy-three patients were admitted to mental deficiency hospitals during 1951. Their age and sex distribution and the authority on which they were admitted is contained in Table I on page 116.

At the end of the year, the names of 89 Manchester patients were on the Regional Hospital Board's waiting list for admission to mental deficiency hospitals. Their age and sex distribution, together with an indication of the period of time they have been waiting for vacancies, is given in Table II on page 116.

Special mention must be made of the very great assistance that some hospitals have given in providing temporary vacancies to alleviate domestic crises. At certain times of the year, particularly during the summer, numbers of patients are allowed to return home from mental deficiency hospitals on licence, thus creating temporary vacancies. In 15 cases, these vacancies were used to help families where the presence of a mental defective had either brought considerable physical strain upon the parents or where the condition of the parent (confinement, hospital admission, etc.) had made the care of the patient inadequate.

Shortage of accommodation for persons of unsound mind, whilst it continued to exist, showed some improvement toward the end of the year and was not nearly so difficult a problem as it was for mental defectives. The bed bureau serving local health authorities in South-East Lancashire from Prestwich Hospital continued to operate satisfactorily. The names of 2 male and 21 female patients were on the waiting list at the end of the year, showing a reduction of 49 females as compared with the number waiting for admission at the end of 1950.

Reports for Hospitals.

The Service continued to co-operate closely with all the mental and mental deficiency hospitals in the region. A summary of the number of visits paid at the request of hospitals appears in Table III on page 117.

(a) Social Histories.

Seventy-three reports on the social history and background of persons admitted to mental hospitals were made during the year. The compilation of these reports from relatives requires a good deal of patience and sympathy; though time-consuming, the reports have been found to be of very great assistance to the hospital staff in providing those details of personal information that are essential in the early diagnosis and treatment of mental disorders.

(b) Mental Defectives on Licence.

The licensing of a mental defective to the community from the institution in which he was originally placed is a normal and essential prelude to discharge. It is not likely to be of much value unless the patient is actively and sympathetically encouraged to adjust himself to live in a normal environment. As emphasized in the Board of Control Circular No. 850 of June, 1938, it is imperative that the kind of assistance suitable to the needs of each patient should be ascertained and, wherever possible, provided.

The actual supervision of mental defectives on licence is largely done by local health authorities. Legally, however, the management committees of the mental deficiency hospitals remain responsible for all their patients on licence. The local authority, in performing these duties, acts as a voluntary agent of the hospital management committee.

This is an apparent anomaly in the structure of the national health service. If the progress of a patient on licence continues to be satisfactory, he can normally expect favourable consideration of his final discharge from the hospital after a period of about two years. After discharge, through its social workers, the local authority is expected to afford him a measure of friendly guidance and support. The authority, however, is not always able to do this readily unless a continuity of supervision has been established from the time the patient first left hospital on licence.

In the interests of the patient there would, therefore, appear to be good grounds for making all domiciliary care of the mentally defective, whether under supervision, guardianship, or on licence from mental deficiency hospitals, the responsibility of one authority; the only authority upon which that responsibility could logically be placed would be the local health authority constituted under the provisions of Part III of the Act of 1946.

Twenty-nine persons on licence from mental deficiency hospitals were living in Manchester at the end of the year and the supervision of their progress was being undertaken by the Service. Regular progress reports were sent to the hospitals and 130 of these were completed during the year.

(c) *Suitability for Licence.*

Reports were also sent to mental deficiency hospitals following enquiries in 189 cases where relatives had applied to hospital management committees for the release of patients on licence.

These reports contain confidential information on the home conditions and environment and are invaluable to the hospitals in deciding whether the granting of a licence is advisable.

(d) *Recertification Reports.*

221 reports were sent to mental deficiency hospitals to assist the statutory visitors in the reconsideration of judicial orders made under the Mental Deficiency Acts, 1913-1938.

Domiciliary Consultations.

The Ministry of Health Circular 100/47 stressed the importance of obtaining specialist advice in the medical ascertainment of mental defectives other than those of low grade. On several occasions during the year, particularly in the case of borderline female adults, the regional hospital board were asked to arrange for a second opinion by a consultant in mental deficiency. Ready assistance was given at all times in these as well as in cases of alleged mental deficiency appearing in the courts.

Mention must also be made of the close co-operation that continued to exist between the department and the local psychiatric out-patient clinics.

In 1951, the Ministry of Health decided (Circular 38/51) that, on practical grounds, psychiatric services for remand homes should be provided by the national health consultant service.

Voluntary Associations.

No duties were delegated to voluntary associations. With the approval of the Minister, the Council made a contribution of £25 in support of the general work of the National Association for Mental Health. A party of 26 pupils from the Occupation Centres had a week's holiday at the Association's home at Rhyl.

Discussions took place with the Mental After-Care Association towards the end of the year on the provision of a mental health convalescent home in the North-West. Further particulars are given later in this report.

Training of Mental Health Workers.

Occupation Centre Staff.

The National Association for Mental Health arranged a refresher course for the staffs of Occupation Centres from the 29th March to the 6th April, 1951. The course was residential and took place at Hulme Hall, Victoria Park, Manchester. The Supervisors of the three Manchester Occupation Centres attended and lectures were given on the physical, intellectual, and emotional aspects of the child; there were also classes on such practical subjects as speech and sense training, physical work, eurythmics, handicrafts, and nature study.

In conjunction with other local authorities in the North-West, negotiations continued throughout the year with the National Association for Mental Health for the establishment of a course of training in Manchester for the staffs of Occupation Centres. This course, if arranged, would be along the lines of the one already established in London, would cover three academic terms and would lead to examination for the diploma awarded by the National Association. In October, 1951, the Council resolved to send two candidates to this course if the demand from neighbouring authorities warranted its inauguration.

Other Social Workers.

The report of the Committee on Social Workers in the Mental Health Services was published as a White Paper in June, 1951. The Committee was appointed by the Minister in July, 1948, under the chairmanship of Professor J. M. Mackintosh and the terms of reference were:—

“To consider and make recommendations upon questions arising in regard to the supply and demand, training and qualifications of social workers in the Mental Health Service.”

The report is a document of considerable sociological importance and surveys the whole field of mental health social services. After tracing the historical growth of mental health social work, the report considers the supply and demand of workers, discusses problems of training, and makes specific recommendations.

The Committee estimated a need for some 1,500 psychiatric social workers to meet the needs of the various employing bodies compared with the present 331 in active practice. Of these 331, only 43 were found to be employed in the north of England, and throughout the country only 8 (2·43 per cent.) were working for local health authorities in their mental health services.

As regards other mental health workers, the Committee say, “it is common knowledge that the supply of trained workers is in many areas inadequate to meet existing demands and it seems that the tendency will be for the gap to widen unless recruitment can be stimulated.” The Committee estimate demand, apart from administrative and occupation centre staff, at the rate of two workers per 100,000 of the population, and it is interesting to recall that this was the figure suggested by the Council in their proposals approved by the Minister of Health under the provisions of Part III of the National Health Service Act, 1946.

It is hoped that, as a result of the findings and recommendations of the Mackintosh Committee, strenuous efforts will be made by all concerned with the selection and training of mental health and psychiatric social workers in order that improvements may be brought about not only in the total number of qualified staff but also in the geographical distribution of psychiatric social workers. Psychiatric social workers are valuable members of a team and local authority mental health services will never be fully and satisfactorily developed until these workers can be recruited in adequate numbers.

Training of Health Visitors and Social Administration Students.

The Service continued to co-operate with the University in giving training in mental health to students from the Faculty of Economics and Social Administration. Similar facilities were extended to student health visitors preparing for the examination of the Royal Sanitary Institute.

All these students were given experience of district visiting, visits to occupation centres and hospitals were arranged, and lectures on the Mental Deficiency Acts, 1913-1938, and the Lunacy and Mental Treatment Acts, 1890-1930, were given by the Administrative Assistant for Mental Health at the Manchester College of Technology.

The Mental Deficiency Acts, 1913-1938.

Ascertainment.

Table IV on page 117 gives particulars of the source and sex of the 134 new cases of mental deficiency ascertained in the City during the year. 125 of these were subject to be dealt with under the Mental Deficiency Acts. The disposal of these cases notified in 1951 is shown in Table V.

The School Health Service remains the most fruitful source of new cases and was responsible for 100 notifications during the year. 34 cases were brought to light as a result of information received from the Police and other sources such as the N.S.P.C.C., the Children's, Welfare Services, and Maternity and Child Welfare departments. To all these grateful thanks are due for helpful assistance and co-operation in safe-guarding the interests of the mentally defective.

Forms of Care.

2,252 mental defectives were known to the Service on the 31st December, 1951. Of these, 870 (38·63 per cent.) were under statutory supervision, 233 (10·35 per cent.) were under voluntary supervision, 1,143 (50·75 per cent.) were in institutions, 6 under guardianship, and 4 in places of safety. Table XI on page 120A gives details of the age and sex distribution of all cases of mental deficiency known to the local authority, their forms of care and the recorded incidence for each ward of the City expressed as a rate per 1,000 of the estimated population. The Table shows that the incidence of mental deficiency continues to be high in the older and more populated districts.

The domiciliary supervision of the mentally defective continued to be the major concern of the Service throughout the year. The Mental Deficiency Acts give no definition of what supervision is, nor do they specify what it entails. As recommended, however, by the Board of Control in Circular 808 of June, 1935, the Service has endeavoured to take a wide view of its powers in the hope not only of improving the social conditions in which defectives have been found but also of giving more practical assistance, encouragement and advice to parents and relatives. 1,451 visits were made to mental defectives under supervision.

A good understanding has been developed with the Ministry of Labour, who have often been successful in finding work for suitable defectives, with the Probation Service and the local offices of the National Assistance Board, with many Corporation departments and with various charitable organizations in the City who have at all times been sympathetic and have often been able to give assistance for purposes not covered by public funds.

Of the 6 guardianship cases for whom the City Council is responsible, 3 were living outside Manchester and were being visited by other local health authorities, to whom the Council's thanks are due. One new case came under guardianship during 1951.

At the end of the year, the regional hospital board had been unable to provide permanent care for the 4 cases in places of safety and, in consequence, the Service was unable to proceed with petitions to judicial authorities for Orders under the Mental Deficiency Acts.

Removal from Supervision.

Twenty-two cases were removed from voluntary and 78 from statutory supervision during 1951. Details of these removals are given in Table VI on page 118.

Marriage and Children.

Of the total number of mental defectives known to the Service, 3 males and 3 females married during 1951. 7 defectives gave birth to children after marriage and there were 2 illegitimate births to mental defectives during the year.

Occupation Centres.

Attendance.

The total number of pupils attending the Occupation Centres at the end of the year was 174; they were divided into the age and sex groups shown in Table VIII on page 119. The same Table gives particulars of the pupils waiting for vacancies in Occupation Centres.

Attendances at the Ancoats and Wythenshawe Centres were well maintained and more pupils were being received at Victoria Park following the completion of extensive building repairs, structural alterations, and redecoration. Additional accommodation can now be provided at this Centre and expansion will undoubtedly take place as new cases continue to be ascertained and as the facilities of the Service become more widely known.

A place has now been found in an Occupation Centre for every suitable child living in the southerly and central parts of the City. By the end of the year it had not been possible, however, to establish a further Occupation Centre serving the Blackley, Crumpsall, Lightbowne, and Moston Wards of the City and no training facilities existed in these districts for mental defectives under supervision. At the turn of the year, plans were afoot for 34 defectives in these areas to be transported daily to the Centre in Victoria Park. 5 pupils from the area of the Cheshire County Council and 2 from the Lancashire County Council attended the Wythenshawe and Victoria Park Centres respectively.

Meals.

Each pupil in attendance at an Occupation Centre is provided with a hot mid-day meal at a cost to the pupil of sixpence; no charge is made to pupils whose parents are of poor financial means. Free milk is supplied to all pupils under the age of 18 years.

At Victoria Park the meals are prepared on the premises, whilst at Ancoats and Wythenshawe they are supplied through the School Meals Service of the Education Committee.

The staff assist in serving the meals and at all the Centres the standard of meals supplied was very satisfactory.

Activities.

By reason of mental defect, pupils of school age are, of course, outside the ambit of the normal or special educational systems and the disability of a high proportion of those in attendance is severe. The problems of Centre training are the more difficult by reason of the fact that some of the pupils are of adult age but with mental developments of pre-school children. The curriculum is accordingly framed on simple and elementary lines and is directed towards the achievement of clean habits, good manners, physical development and, where possible, a knowledge of simple manual occupations.

Grading takes place according to mental ability and attainment; the chronological age of the pupils is not the determining factor. Progress is always slow and quick results are not to be expected. There is no doubt, however, that the training is beneficial both to the pupil, who is given an occupation and interest in simple tasks, and also to the parent, who is not only relieved of a burden for a few hours a day but is also encouraged in consolidating improvements of habit and behaviour observed by the Centre staff. There is an obvious difference in any home between a trained and an untrained mental defective.

Modern equipment has been introduced, particularly in the nursery class at Victoria Park, and this has proved to be of great assistance in providing recreational and physical training facilities. The type of equipment that can be used at Ancoats and Wythenshawe is limited owing to storage difficulties in rented premises.

Percussion bands have been started in all the Centres and these form an invaluable part of the training. A real interest is shown by the pupils and the most difficult child appears to respond to music and rhythm.

Physical training, games, and simple folk dancing continue to be taught and team spirit, with friendly rivalry between classes, is encouraged. Classes in gardening have been introduced at Victoria Park for the older boys, and a Rose Queen Festival held at this Centre in the summer brought much enjoyment to pupils and parents alike.

A party of 26 pupils from deserving families enjoyed a week's holiday at the Bod Donwen Holiday Home, Rhyl, in July, 1951.

Christmas parties were held at all the Centres at which presents, purchased from voluntary funds in the gift of the Lord Mayor, were distributed. By the kind invitation of Kemsley Newspapers Ltd., 80 children participated in the "Evening Chronicle" Christmas Circus treat at the opening performance at Belle Vue on the 21st December, 1951.

The members of the Occupation Centre staff are again to be congratulated on their work during the year.

The Lunacy and Mental Treatment Acts, 1890-1930.

Notifications and Admissions.

The work of the duly authorised officers is summarized in Table X on page 120 967 notifications of alleged insanity were received during the year and, of these, 538 were admitted to mental hospitals as certified or voluntary patients.

The graph on page 120B gives details of the sex and age group of certified and voluntary admissions to mental hospitals during 1951. Below the age of 45 the male admission rate is greater than that for females. Over that age, the reverse is the case, except in the 65-74 age group.

Convalescence from Mental Illness.

Experience has shown that the convalescence of a mental patient is frequently a period fraught with difficulties of many kinds, and the initial problems of rehabilitation are often in no way mitigated by the patient having to return direct from hospital to an environment that may have partially contributed to his initial breakdown.

In certain selected cases it has been felt that recovery could more easily be related to the community social conditions under which a patient would live were there some form of "half-way house," say in the form of recuperative holiday homes, to bridge over this difficult period between recovery and return to normal life.

A practical difficulty so far encountered has been the reluctance on the part of many convalescent homes to receive patients who have a history of mental symptoms and, in any case, the avenues for placing cases in normal convalescent homes are themselves very limited.

In consultation with other North-West local authorities and regional hospital boards, enquiries were accordingly addressed to the Mental After-Care Association, a voluntary Association formed in 1879. One of the Association's objects is to provide periods of convalescence in sympathetic surroundings, in order to re-establish self-respect and self-confidence in patients and to encourage them in overcoming difficulties that arise after recovery and discharge from hospital.

The Mental After-Care Association have intimated that they would be pleased to open a home in the North-West, and the Ministry of Health have decided that under Section 28 (1) of the National Health Service Act, 1946, it would be competent for a local health authority to pay for persons received into the Association's homes if these persons are in need of after-care on health grounds.

At the turn of the year the Council gave approval in principle to the suggested convalescence and negotiations with the Mental After-Care Association were still proceeding.

Care and After-Care.

When a patient is discharged from hospital every effort is made to facilitate his return to a normal life. Visits are paid as required to assist in overcoming the many social problems that sometimes face a patient when he no longer has the protection of a sympathetic hospital environment. The value of after-care cannot be over-emphasized. The so-called stigma associated with mental illness is still prevalent in many quarters and whatever reassurance and practical help that can be brought to the former patient is well worth-while.

The statistics relating to care and after-care are shown in Table IX on page 119.

TABLE I

(See page 108).

Mental Defectives Admitted to Mental Deficiency Hospitals in 1951.

| Method of Admission | Male | | Female | | Total |
|--------------------------------------|----------|---------|----------|---------|-------|
| | Under 16 | Over 16 | Under 16 | Over 16 | |
| Upon petition | — | 5 | 4 | 12 | 21 |
| Placed by parent | 8 | — | 12 | 1 | 21 |
| By Court Order | 4 | 7 | — | — | 11 |
| By Order of the Secretary of State.. | 1 | — | 1 | 1 | 3 |
| Place of safety | 1 | 1 | — | — | 2 |
| Temporary admission | 8 | — | 5 | 2 | 15 |
| Total | 22 | 13 | 22 | 16 | 73 |

TABLE II

(See page 108).

Type, Age, and Sex Distribution of Mental Defectives Awaiting Hospital Admission.

| | MALE | | | | | | | | FEMALE | | | | | | | | |
|--|----------|-----|-----|-----|---------|-----|-----|-----|----------|-----|-----|-----|---------|-----|-----|-----|-------|
| TIME ON WAITING LIST | Under 16 | | | | Over 16 | | | | Under 16 | | | | Over 16 | | | | TOTAL |
| | (a) | (b) | (c) | (d) | (a) | (b) | (c) | (d) | (a) | (b) | (c) | (d) | (a) | (b) | (c) | (d) | |
| Over 3 years | 1 | — | 1 | — | — | — | — | — | — | 1 | — | — | — | — | — | — | 3 |
| 2-3 years | 1 | 1 | 4 | — | — | — | 1 | 1 | — | 5 | 3 | — | — | 2 | 7 | 1 | 26 |
| 1-2 years | 3 | 1 | 2 | — | — | 1 | — | — | 1 | 5 | 2 | 1 | — | 2 | 3 | 3 | 24 |
| Under 1 year | 4 | 7 | 3 | — | — | 1 | 3 | 2 | 4 | — | 2 | 1 | — | — | 1 | 8 | 36 |
| Total on waiting list, 31st December, 1951 .. | 9 | 9 | 10 | — | — | 2 | 4 | 3 | 5 | 11 | 7 | 2 | — | 4 | 11 | 12 | 89 |

(a) cot and chair cases.

(b) ambulant low grade cases.

(c) medium grade cases.

(d) high grade cases.

TABLE III

(See pages 109 and 110).

Social History, Progress, Licence, and Recertification Reports.

| Type of Report | Male | | Female | | Total |
|-------------------------|----------|---------|----------|---------|-------|
| | Under 16 | Over 16 | Under 16 | Over 16 | |
| Social history | — | 38 | — | 35 | 73 |
| Progress | 4 | 78 | 4 | 44 | 130 |
| Licence | 7 | 134 | — | 48 | 189 |
| Recertification | 20 | 107 | 5 | 89 | 221 |
| Total | 31 | 357 | 9 | 216 | 613 |

TABLE IV

(See page 112).

Ascertainment of Mental Deficiency.*New Cases notified in 1951.*

| | Education Act, 1944 | | Other Sources | | Total |
|-----------------|---------------------|----------------|--------------------------|------------------------------|-------|
| | Section 57 (3) | Section 57 (5) | Subject to be dealt with | Not subject to be dealt with | |
| Males | 38 | 13 | 15 | 5 | 71 |
| Females | 20 | 29 | 10 | 4 | 63 |
| Total | 58 | 42 | 25 | 9 | 134 |

TABLE V

(See page 112).

Disposal of Mental Defectives ascertained in 1951.

| Method of Disposal | Male | | Female | | Total |
|---|----------|---------|----------|---------|-------|
| | Under 16 | Over 16 | Under 16 | Over 16 | |
| (a) Defectives found to be "subject to be dealt with"— | | | | | |
| Admitted to institution | 4 | 10 | 2 | 5 | 21 |
| Placed under guardianship | — | — | — | — | — |
| Taken to places of safety | — | — | — | — | — |
| Placed under statutory supervision | 42 | 11 | 27 | 22 | 102 |
| Died or removed from area .. | — | — | 1 | — | 1 |
| Action not taken by end of year.. | — | — | — | — | — |
| Notification cancelled | — | — | 1 | — | 1 |
| (b) Defectives not at present "subject to be dealt with"— | | | | | |
| Placed under voluntary supervision | 1 | 4 | — | 4 | 9 |
| Later found not to be defective .. | — | — | — | — | — |
| Died or removed from area | — | — | — | — | — |
| Action unnecessary | — | — | — | — | — |
| Action not taken by end of year.. | — | — | — | — | — |
| Total | 47 | 25 | 31 | 31 | 134 |

TABLE VI

(See page 113).

Removal of Mental Defectives from Supervision.

| Reason for Removal | Male | | Female | | Total |
|--|----------------------------|----------------------------|----------------------------|----------------------------|-------|
| | From statutory supervision | From voluntary supervision | From statutory supervision | From voluntary supervision | |
| Capable of managing themselves and their affairs | 5 | 8 | 2 | 6 | 21 |
| Transferred to voluntary/statutory supervision | 1 | — | 3 | 1 | 5 |
| Transferred to other authorities | 3 | — | 4 | 4 | 11 |
| Lost sight of | 3 | 2 | 1 | 1 | 7 |
| Died | 5 | — | 4 | — | 9 |
| Other causes | 16 | — | 31 | — | 47 |
| Total | 33 | 10 | 45 | 12 | 100 |

TABLE VII
Occupation Centre Staff.

| Occupation Centre | Supervisor | Assistant Supervisor | Guides | Caretaker | Cleaner | Cook |
|---------------------|------------|----------------------|--------|-----------|---------|------|
| Ancoats.. .. . | 1* | 1 | 2 | — | — | — |
| Victoria Park | 1* | 4 | 4 | 1 | 1 | 1 |
| Wythenshawe | 1 | 1 | 3 | — | — | — |
| Total .. | 3 | 6 | 9 | 1 | 1 | 1 |

* Holds the diploma of the National Association for Mental Health

TABLE VIII
(See page 113).
Attendance of Mental Defectives at Occupation Centres.

| Occupation Centre | Male | | Female | | Total |
|---------------------------------|----------|---------|----------|---------|-------|
| | Under 16 | Over 16 | Under 16 | Over 16 | |
| Ancoats | 20 | 3 | 11 | 2 | 36 |
| Victoria Park | 35 | 12 | 24 | 7 | 78 |
| Wythenshawe | 10 | 5 | 9 | 2 | 26 |
| Number awaiting vacancies | 11 | 6 | 9 | 8 | 34 |
| Total | 76 | 26 | 53 | 19 | 174 |

TABLE IX
(See page 115).
Care and After-Care of Mental Illness.

| | Male | Female | Total |
|---|------|--------|-------|
| Number of visits or interviews | 485 | 822 | 1,307 |
| Removed from care | 67 | 60 | 127 |
| Referred for medical report:— | | | |
| (a) to general medical practitioner | 11 | 16 | 27 |
| (b) to psychiatrist or clinic.. .. . | 4 | 1 | 5 |
| Interviews with other agencies, departments, or employers | 38 | 35 | 73 |
| Total.. .. . | 605 | 934 | 1,539 |

TABLE X
 (See page 114).
Lunacy and Mental Treatment Acts, 1890-1930.
Ascertainment and Disposal of Cases.

| Source of Notification | Male | Female | Total |
|---------------------------------------|------|--------|-------|
| General Medical Practitioners | 153 | 271 | 424 |
| Hospitals and Clinics | 156 | 196 | 352 |
| Other Corporation Departments | 13 | 22 | 35 |
| Police Authorities | 25 | 18 | 43 |
| General public | 21 | 40 | 61 |
| Other sources* | 18 | 34 | 52 |
| Total | 386 | 581 | 967 |

* includes patients dealt with on behalf of other Authorities.

| Disposal after investigation | Male | Female | Total |
|--|------|--------|-------|
| Recommended for hospital admission | | | |
| (a) Voluntary | 18 | 7 | 25 |
| (b) Temporary | — | — | — |
| (c) Certifiable.. .. . | 232 | 281 | 513 |
| Referred for Medical Report | | | |
| (a) to General Medical Practitioner | 54 | 73 | 127 |
| (b) to Psychiatrist | 7 | 5 | 12 |
| Referred to other Departments or Agencies.. .. | 7 | 13 | 20 |
| No further action necessary | 82 | 188 | 270 |
| Total | 400 | 567 | 967 |

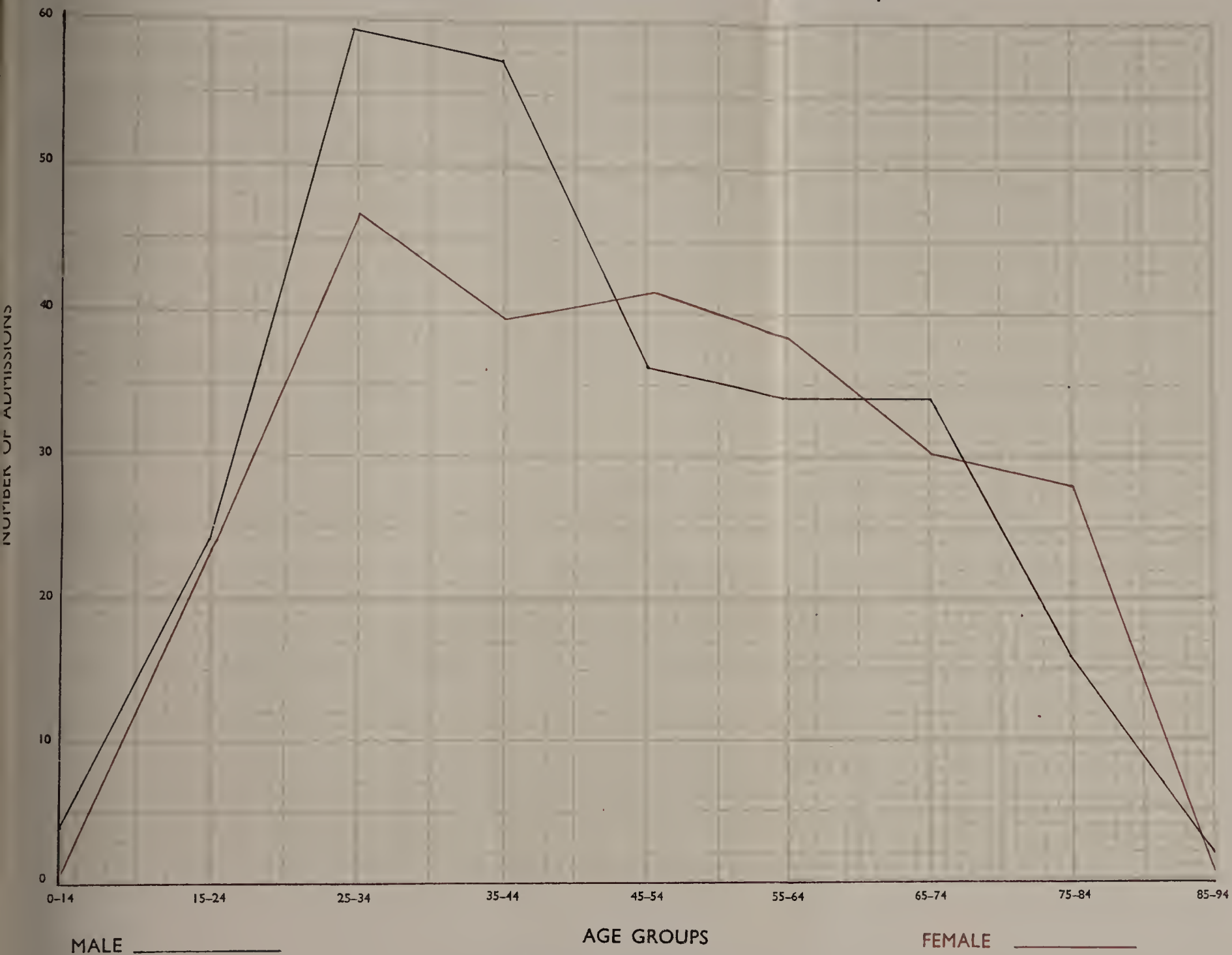
Table XI.

HEALTH DEPARTMENT.

Incidence and Distribution of Mental Deficiency.

| WARD | Estimated Population | STATUTORY SUPERVISION | | | | | VOLUNTARY SUPERVISION | | | | | GUARDIANSHIP | | | | | INSTITUTION | | | | | TOTAL CASES | Incidence per 1,000 population |
|----------------------------|-------------------------|-----------------------|------------|-------------|------------|-------|-----------------------|------------|-------------|------------|-------|--------------|------------|-------------|------------|-------|-------------|------------|--------|-----|-------|----------------|--------------------------------------|
| | | Male | | Female | | TOTAL | Male | | Female | | TOTAL | Male | | Female | | TOTAL | Male | | Female | | TOTAL | | |
| | | Under 16 | Over 16 | Under 16 | Over 16 | | Under 16 | Over 16 | Under 16 | Over 16 | | Under 16 | Over 16 | Under 16 | Over 16 | | Under 16 | Over 16 | | | | | |
| Alexandra Park | 21,750 | 2 | 2 | 1 | 1 | 6 | — | 2 | — | 1 | 3 | — | — | — | — | — | 1 | 3 | 1 | 11 | 16 | 25 | 1.15 |
| All Saints | 19,244 | 4 | 10 | 5 | 13 | 32 | — | 6 | — | 9 | 15 | — | — | — | — | — | 3 | 18 | 2 | 18 | 41 | 88 | 4.57 |
| Ardwick | 18,390 | 2 | 11 | 5 | 14 | 32 | — | 9 | — | 11 | 20 | — | — | — | — | — | 4 | 19 | — | 23 | 46 | 98 | 5.33 |
| Barlow Moor | 15,475 | 2 | — | 2 | 4 | 8 | — | 1 | — | 1 | 2 | — | — | — | — | — | 1 | 10 | — | 2 | 13 | 23 | 1.49 |
| Beswick | 20,142 | 2 | 17 | 1 | 17 | 37 | — | 1 | — | 2 | 3 | — | 1 | — | 1 | — | 4 | 17 | 1 | 12 | 34 | 75 | 3.72 |
| Blackley | 20,523 | 5 | 5 | 1 | 8 | 19 | — | 1 | — | 2 | 3 | — | — | — | — | — | 1 | 7 | 2 | 8 | 18 | 40 | 1.95 |
| Bradford | 23,543 | 6 | 15 | 4 | 21 | 46 | — | 7 | — | 3 | 10 | — | — | — | — | — | 5 | 13 | 1 | 23 | 42 | 98 | 4.16 |
| Burnage | 22,646 | 4 | 5 | 5 | 8 | 22 | — | — | — | 4 | 4 | — | — | — | — | — | — | 14 | — | 7 | 21 | 47 | 2.08 |
| Cheetham | 14,648 | 2 | 3 | 3 | 2 | 10 | — | 4 | — | 5 | 9 | — | — | — | — | — | 1 | 15 | 1 | 10 | 27 | 46 | 3.14 |
| Chorlton-cum-Hardy | 20,606 | — | 5 | — | 3 | 8 | — | 1 | — | 3 | 4 | — | — | — | — | — | 4 | 7 | 1 | 7 | 19 | 31 | 1.50 |
| Collegiate Church | 14,350 | 6 | 11 | 3 | 6 | 26 | — | 1 | — | 7 | 8 | — | — | — | — | — | 1 | 32 | 1 | 14 | 48 | 82 | 5.71 |
| Crumpsall | 22,371 | 8 | 9 | 5 | 8 | 30 | — | 8 | — | 4 | 12 | — | — | — | — | — | 1 | 7 | 2 | 14 | 24 | 66 | 2.95 |
| Didsbury | 17,168 | 1 | 1 | 1 | 2 | 5 | — | 1 | — | — | 1 | — | — | — | — | — | — | 4 | — | 5 | 9 | 15 | 0.87 |
| Gorton North | 23,511 | 3 | 10 | 5 | 19 | 37 | — | 7 | — | 6 | 13 | — | — | — | — | — | 3 | 18 | 1 | 20 | 42 | 92 | 3.91 |
| Gorton South | 18,075 | 2 | 4 | 3 | 20 | 29 | — | 2 | — | 4 | 6 | — | — | — | — | — | 1 | 11 | 2 | 5 | 19 | 54 | 2.99 |
| Harpurhey | 19,101 | 3 | 4 | 3 | 18 | 28 | — | 4 | — | 2 | 6 | — | — | — | — | — | 1 | 20 | — | 10 | 31 | 65 | 3.40 |
| Levenshulme | 20,067 | 2 | 4 | 1 | 3 | 10 | — | 3 | — | 1 | 4 | — | — | — | — | — | 2 | 13 | — | 12 | 27 | 41 | 2.04 |
| Lightbowne | 20,849 | 3 | 7 | 2 | 10 | 22 | — | 5 | — | — | 5 | — | — | — | — | — | 3 | 7 | — | 6 | 16 | 43 | 2.06 |
| Longsight | 16,300 | 5 | 5 | 3 | 6 | 19 | — | 1 | — | 2 | 3 | — | — | — | — | — | 1 | 9 | 1 | 6 | 17 | 39 | 2.39 |
| Miles Platting | 15,375 | 3 | 6 | 2 | 11 | 22 | — | 3 | — | 1 | 4 | — | 1 | — | 1 | — | — | 13 | — | 6 | 19 | 46 | 2.99 |
| Moss Side East | 19,533 | 3 | 10 | 3 | 14 | 30 | — | 3 | — | 5 | 8 | — | — | — | — | — | 5 | 20 | 2 | 18 | 45 | 83 | 4.25 |
| Moss Side West | 19,212 | 3 | 8 | 1 | 5 | 17 | — | 7 | — | 3 | 10 | — | — | — | — | — | 2 | 9 | 1 | 9 | 21 | 48 | 2.50 |
| Moston | 20,668 | 5 | 9 | 2 | 9 | 25 | — | 2 | — | 1 | 3 | — | — | — | — | — | — | 9 | — | 2 | 11 | 39 | 1.89 |
| New Cross | 14,977 | 3 | 9 | 5 | 8 | 25 | — | — | — | 2 | 2 | — | — | — | 1 | 1 | 2 | 20 | — | 17 | 39 | 67 | 4.54 |
| Newton Heath | 19,729 | 4 | 5 | 3 | 8 | 20 | — | 2 | — | 1 | 3 | — | — | — | — | — | 2 | 12 | 1 | 8 | 23 | 46 | 2.33 |
| Newtown | 20,425 | 6 | 21 | 2 | 14 | 43 | — | 7 | — | 10 | 17 | — | — | — | — | — | 3 | 39 | 1 | 23 | 66 | 126 | 6.17 |
| Northenden | 18,711 | 4 | — | 4 | 2 | 10 | — | 2 | — | 1 | 3 | — | — | — | — | — | 2 | 5 | 1 | 4 | 12 | 25 | 1.34 |
| Old Moat | 17,212 | — | 7 | 4 | 9 | 20 | — | — | — | 2 | 2 | — | — | — | — | — | — | 9 | — | 6 | 15 | 37 | 2.15 |
| Openshaw | 23,422 | 5 | 20 | 3 | 29 | 57 | — | 3 | — | 3 | 6 | — | — | — | — | — | — | 15 | 2 | 17 | 34 | 97 | 4.14 |
| Rusholme | 17,457 | 4 | 5 | — | 7 | 16 | — | 2 | — | 2 | 4 | — | — | — | — | — | 3 | 18 | 1 | 10 | 32 | 52 | 2.98 |
| St. George's | 19,958 | 5 | 14 | 4 | 5 | 28 | — | 3 | — | 3 | 6 | — | — | — | — | — | 2 | 35 | 2 | 23 | 62 | 96 | 4.81 |
| St. Luke's | 18,858 | 8 | 19 | 2 | 15 | 44 | — | 8 | — | 8 | 16 | — | — | — | — | — | 8 | 36 | 2 | 28 | 74 | 134 | 7.11 |
| St. Mark's | 21,662 | 1 | 8 | 4 | 15 | 28 | — | 3 | — | 4 | 7 | — | — | — | — | — | 5 | 24 | 1 | 16 | 46 | 81 | 3.74 |
| St. Peter's | 11,857 | 4 | 5 | 3 | 7 | 19 | — | 4 | — | 1 | 5 | — | — | — | — | — | — | 24 | — | 16 | 40 | 64 | 5.40 |
| Withington | 15,387 | — | 2 | 1 | 1 | 4 | — | — | — | 1 | 1 | — | — | — | — | — | — | 6 | — | 6 | 12 | 17 | 1.10 |
| Wythenshawe | 36,698 | 7 | 11 | 6 | 12 | 36 | — | 1 | 1 | 3 | 5 | — | — | — | — | — | 1 | 4 | 1 | 6 | 12 | 53 | 1.44 |
| Unclassified | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3 | 3 | — | 29 | — | 41 | 70 | 73 | |
| Total | 699900 | 127 | 287 | 102 | 354 | 870 | — | 114 | 1 | 118 | 233 | — | 2 | — | 4 | 6 | 72 | 571 | 31 | 469 | 1,143 | 2,252 | 3.22 |

LUNACY & MENTAL TREATMENT ACTS 1890—1930
Admission of Certified and Voluntary Patients to Mental Hospitals



MANCHESTER 1951

FAMILY WELFARE CENTRES.

The Family Welfare Service commenced in 1948 at Higher Ardwick and Northenden Maternity and Child Welfare Centres. A third centre was commenced at Withington Maternity and Child Welfare Centre in April, 1951.

The Family Welfare Service is a preventative and constructive service, and aims at stabilising family life by preventing, if possible in the early stages, wrong tendencies which if allowed to continue are likely to lead to nervous breakdowns, broken marriages, delinquency and much general unhappiness, especially where there are children.

The Service is under the supervision of a psychiatrist, Lady (Gertrude) Jefferson, who has two assistants, a psychiatric social worker and a secretary-receptionist. A Manchester University social science student is allowed by the University to do her practical work with the staff of the Centres and gives valuable assistance to the psychiatric social worker.

The work is becoming progressively better known and the sources from which the applicants come are widening.

During the year a total of 1,135 interviews were given at the three centres to 300 applicants, of which 217 were new cases. This is an increase over 1950, when the figures were 1,116 interviews, 250 applicants, 174 new cases.

Many cases are referred to the Family Welfare Centres because they have proved too difficult for such services as probation officers, Marriage Guidance Council or hospital almoners. Cases from the Child Guidance Clinics are also sent where it is felt that the disturbance is primarily with the parents, or where the child is of low intelligence and the only approach is through the parents.

Other cases are referred by doctors and health visitors on the staff of the Health Department, magistrates, general practitioners, clergymen, Poor Man's Lawyer Association and many others.

It is thought that many cases would become mental hospital patients had they not been referred informally to the Family Welfare Centre, their disturbances arrested and mental condition much improved.

It is difficult to make a statistical assessment as to the amount of good which this service contributes to the community, but the increasing number of attendances indicates its need and wide appeal.

MUNICIPAL HOSTELS.

Walton House, Harrison Street, Ancoats.

Manager : Mr. H. R. Gomersall to 7th May, 1951.

Mr. H. Stainton from 8th May, 1951.

Walton House is a registered Common Lodging House for men with separate cubicles for 454 persons.

During 1951 the Hostel again gave sterling service to the men who use this class of accommodation, and it was filled to capacity throughout the year; 1,285 requests for accommodation had to be refused.

Repainting of the dormitories in a " sunshine " shade of paint was completed; the cubicles and corridors present a pleasant appearance and have been lightened considerably by the decorating.

Continued rationing of foodstuffs created problems for the catering staff but nevertheless they were able to supply meals of varied menus. The excellent patronage of the residents throughout the year was ample proof of the worth of the hard work of the staff to provide for them.

The laundry was fully occupied maintaining a service for the residents and for the various Corporation departments which have work completed at Walton House ; laundry work was undertaken at the Hostel on behalf of the following departments :—

| | | |
|------------------------------|-------|--|
| Health Department | .. .. | Ashton House municipal hostel. Nursing Services Division (Health Visitors). Public conveniences. |
| Markets Department. | | |
| City Architect's Department. | | |

The following charges were made during the year for the services provided at the Hostel :—

| | | |
|-----------------|---------|--------------------------------------|
| Rent of cubicle | .. .. . | 1s. 9d. a night, or 12s. 0d. a week. |
| Bath | .. .. . | 2d. (soap and towel provided). |
| Lockers : small | .. .. . | 6d. for six months. |
| large | .. .. . | 1s. 0d. for six months. |
| Parcels | .. .. . | 1d. a week. |
| Early calling | .. .. . | 1d. a night, or 4d. a week. |

Ashton House, Corporation Street, Ancoats.

Manageress : Miss S. J. Bayley.

Ashton House is a registered Common Lodging House for women with separate cubicles for 210 persons.

During 1951 the daily average number of women using the Hostel was 180 ; this is a reduction from the record daily average of 191 persons in 1950. A seasonal decline in the average number of persons accommodated normally occurs each year during the summer months, principally due to residents leaving to take up domestic work at holiday resorts ; numbers increase at the close of the holiday season, from approximately October onwards, during the winter months. In the year under review, however, the daily average number of persons accommodated did not increase appreciably until December, when the daily average was 181, an increase of 6 on the November daily average of 175. During the corresponding period in 1950 the daily average number of persons accommodated increased from 188 to 196.

Enquiries made by the Manageress have failed to reveal any particular reason for the decrease. Residents who regularly leave to take up domestic work have returned to the Hostel and the decrease, in the main, was among the vagrant residents.

Daily averages of residents in recent years were as follows :—

| Year | 1951 | 1950 | 1949 | 1948 | 1947 | 1946 |
|-----------------------|------|------|------|------|------|------|
| Daily average | 180 | 191 | 184 | 182 | 161 | 146 |

The catering section was well patronised and, as in former years, the major portion of the business of the section was conducted through the grocery shop. Although cooked meals can be provided, the residents were more inclined to cook for themselves and, as a result, the business of the canteen was reduced.

The following charges were made during the year for the services provided at the Hostel :—

| | | |
|-----------------|---------|--------------------------------------|
| Rent of cubicle | .. .. . | 1s. 6d. a night, or 10s. 3d. a week. |
| Bath | .. .. . | 2d. (soap and towel provided). |
| Lockers : small | .. .. . | 3d. for six months. |
| large | .. .. . | 6d. for six months. |
| Parcels | .. .. . | 1d. a week. |

SANITARY SECTION.

By J. Lawson, M.R.San.I., Chief Sanitary Inspector.

General.

It is fitting to refer to the loss suffered by the department by the death, in July, 1951, of Mr. A. Denman, deputy chief sanitary inspector, who had given more than 30 years unsparing service as an inspector in the department.

The capabilities of Mr. J. Graham, who succeeded Mr. Denman, are known alike to the staff in Manchester and throughout the country to members of the Sanitary Inspectors' Association, in which organisation he serves as a member of the National Council.

The duties assigned to the section have been extended by the operation of new statutory and byelaw provisions but whilst due attention has been given to these and existing responsibilities, it remains necessary to concentrate the main activities of the inspectors upon matters of relative urgency.

In this category is the incidence of disrepair of dwelling houses, in respect of which approximately 17,000 complaints were received, involving more than 60,000 inspections and subsequent visits concerning the progress and supervision of remedial work required by notices served upon owners.

The statutory procedure whereby this work is effected leads in many cases to court proceedings and to the execution of repairs in default ; this necessitates scrupulous care to ensure that notices, specifications, etc., are properly issued and that subsequent action is strictly in accordance with the provisions of the appropriate enactments.

Previous reference has been made to the adverse effect on the staff position occasioned by the application of a national scale of salaries for sanitary inspectors. This position continues to cause many changes in district inspectorial personnel, mainly by reason of the attraction of employment, often at higher salaries, in districts where the duties are less sordid and intensive than in Manchester and other large cities in which there remains a legacy of substandard houses built during the period of rapid industrial development in the previous century.

The depletion of staff and the frequency of changes have imposed additional supervisory responsibilities upon senior inspectors, whose vigilance is reflected in the virtual absence of appeals against notices, charges, etc.

The supervision of the preparation, sale and storage of food is recognised as an important duty and has been well maintained. Reference is made later to the administration of the relevant Acts and Byelaws and to the steps taken to stress the necessity of attaining proper standards.

In the sphere of smoke abatement, the impending inauguration of a smokeless central area in the city gave rise to a large number of enquiries from occupiers of premises affected, regarding the means whereby heating, steam raising and other appliances may be adapted so as to obviate the risk of smoke emission after the operative date, 1st May, 1952.

Preparation, Sale, and Storage of Food.

The achievement of a safe food supply depends ultimately on several factors, not least of these being the measure of co-operation between food traders, individual food handlers and officers of the Local Authority in the exercise of their administrative functions.

An enlightened and vigilant management is essential to the maintenance of hygienic practice in the storage, preparation and handling of food, whereby simple but fundamental principles are recognised and applied as a matter of routine and not merely as a compliance with statutory requirements.

The activities of the sanitary inspectors are not confined to the enforcement of the relevant Act and Byelaws ; lectures have been given to groups of catering operatives on the subject of food hygiene, with particular reference to personal cleanliness in food preparation and handling.

It is realised that those who attend such lectures constitute a small proportion of the personnel most concerned ; accordingly, in their routine visits to food premises, the inspectors take every opportunity to inculcate hygienic methods so as to obviate as far as possible, infringements of the law relating to the prevention of the contamination of food.

It is customary to issue cautions for infringements of a minor character, and this action proved successful in securing remedial measures in a number of cases. Reference is made in subsequent paragraphs to several cases in which more serious offences had taken place, resulting in the prosecution of offenders and the imposition of fines.

Restaurants, Snack Bars and Canteens.

The inspection of catering premises is regarded as being of much importance in the prevention of the development of conditions which may lead to outbreaks of food poisoning and due attention continues to be given to this branch of the inspectors' functions.

The requirement, under the new byelaws of the display of notices requesting food handlers to wash their hands after using a sanitary convenience, has undoubtedly assisted the inspectors to bring home to catering operatives and management the serious risks to public health which may arise from any failure to observe this elementary precaution.

To achieve this aim it is recognised that the provision of convenient facilities for personal cleanliness is essential. In some premises it was found that a sufficient supply of hot water for this purpose was not readily available, but in most of these cases the deficiency was remedied promptly after the attention of the management had been drawn to the hygienic and legal requirements in this regard. In other cases the proprietors have in hand arrangements for the installation of gas or electric water heaters to provide a constant supply of hot water to the washbowls.

In the course of routine inspection it was found that in certain restaurant and cafe premises the provision of sinks and hot water supply for washing utensils and crockery had not kept pace with the development of the business. This position gave rise in some cases to improvised methods of washing up, sometimes in loose bowls placed on counters or tables, and to the risk of the use of washing-up sinks for the preparation of vegetables, or for personal ablution. In these cases also, representations to the management resulted in the provision of additional washing-up sinks, wash basins and hot water supplies.

The kitchens of restaurants and similar establishments are especially liable to infestation by beetles or other insect pests ; such infestation is usually associated with bad siting of hot cupboards and cooking equipment and often occurs where the service pipe ducts provide harbourage in hidden recesses. On the advice of the inspectors, cooking equipment has been refixed in suitable positions and service pipes have been replanned. In one case it was necessary to remove casings which surrounded steel ceiling joists, to eradicate steam flies and their breeding places. As the casings were not replaced, the risk of condensation on the surface of the exposed steel was obviated by the application of a suitable preventive coating.

It is found that insect infestation rarely occurs in restaurant dining rooms, apparently owing to the lower atmospheric temperature in these rooms.

As previously indicated, the general policy in the department is directed to the attainment of proper standards by advisory or cautionary procedure, rather than by punitive measures. In one case, however, the inspection of a restaurant disclosed serious contraventions of Section 13 of the Food and Drugs Act, the food preparation rooms being dirty and the condition of the equipment in these rooms showing evidence of gross neglect to observe cleanliness. Legal proceedings were instituted against the proprietor, who was fined £64 in respect of several infringements of the provisions of the Act relating to the prevention of contamination of food. In this case the unsatisfactory conditions had developed in a comparatively short period of time and indicate the desirability of frequent inspection of certain types of catering premises, a routine measure which can only be achieved by an adequate and experienced staff of inspectors.

The inspection of railway station restaurants and buffets revealed evidence of the implementation of plans for a better and cleaner service of food to the travelling public.

The issue of new catering licences by the Ministry of Food continues to be subject to the approval by the Health Department of the premises concerned, as to their suitability in all respects for the preparation of food for sale. The majority of such applications, 75 in number, were concerned with proposals to sell snacks and beverages, the remainder being for full catering facilities. In every case the premises were inspected and in those instances in which unsatisfactory conditions were found, specifications of requirements were sent to the applicants. On completion of the necessary alterations or improvements, communications were sent to applicants for submission to the Ministry of Food with a view to the issue of authorisations to obtain certain rationed foods for catering purposes. Some applicants were unable or unwilling to fulfil the requirements necessary to secure full compliance with the Food and Drugs Act, and withdrew their applications accordingly.

These arrangements for the prior approval of catering premises are of much value in their constructive effect and ensure that the premises are so equipped as to facilitate hygienic practice and to obviate infringements of the Act and byelaws relating to structural and other conditions in rooms in which food is stored or prepared.

Another measure of co-operation to the same end is that whereby the City Architect forwards to the Health Department building plans relating to the construction of restaurant kitchens and other food preparation premises. The plans are scrutinised and recommendations made by the department as to layout and equipment are communicated to the architects concerned.

Bakehouses.

Inspections of the 503 bakehouses in the City show that a good standard of maintenance of premises and cleanliness of equipment was being observed generally. Proprietors responded readily to verbal intimations by the inspectors regarding items of disrepair and other minor infringements of statutory requirements, and there is evidence of a progressive improvement at every stage in the various processes in the preparation and handling of bread and confectionery.

The repression of insect pests and rodents is accepted as an essential measure and very successful results were reported by the inspectors.

Registered Premises (Section 14, Food and Drugs Act, 1938).

There are 482 premises registered under the provisions of the Food and Drugs Act, 1938, relating to the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale.

The processes carried on at these premises are concerned chiefly with the preparation of meat products, and the supervision exercised is designed to prevent the development of adverse conditions of storage, preparation or handling which could readily give rise to serious risk to public health. Although it proved necessary to issue cautions in several instances, in no case were the conditions regarded as being sufficient to warrant formal action for infringements of the Act.

Food Shops.

The standard of cleanliness and food protection in retail shops continues to improve, partly as a consequence of the growing public consciousness of unhygienic customs in the display or sale of food.

This discrimination has been ascribed to the publicity accorded in recent years to the subject of food hygiene generally. The operation of the new byelaws concerning the handling and wrapping of food has also exerted a beneficial influence, which is reflected in the efforts made by shopkeepers to safeguard food from contamination in both public and private portions of shop premises.

Many shopkeepers, including large departmental stores, have installed partly enclosed glass counters to protect foodstuffs previously exposed to dust, droplet infection or handling by customers. New food slicing machines of "easy-to-clean" construction are progressively replacing obsolete types which may accumulate particles of meat or other foods with consequent risk to public health. Cold storage arrangements are increasingly regarded as essential features of equipment in shops where perishable commodities are sold, and are being installed accordingly.

The necessity of a constant supply of hot water for personal ablution and for cleansing food utensils is constantly stressed by the inspectors, and the results have been very satisfactory, especially having regard to the relatively heavy initial cost in the smaller shops.

Food Byelaws (Handling, Wrapping and Delivery).

New byelaws with respect to the handling, wrapping and delivery of food came into force in the city on the 1st April, 1951, and incorporated byelaws previously existing in the city concerning the sale of food on open sites. The latter clauses include provisions prohibiting the sale of food on open sites unless the sites are paved and drained and have on or within reasonable distance of

the sites facilities for personal ablution and for cleaning utensils. It was found necessary after cautioning 12 offenders against these provisions to institute legal proceedings against them and fines were imposed in nine cases. In addition, five summonses were issued under the byelaws for failure to display on stalls used for the sale of food in the open air, the name and address of the food vendor. Fines totalling £2 10s. were imposed.

Legal proceedings were also instituted against two bread and confectionery firms—one firm outside the city—for failing to keep clean the interior of vehicles containing food in course of delivery. One of these firms was also prosecuted for failing to take reasonable steps to protect food from contamination during delivery. Fines totalling £15 were inflicted by the City Magistrates.

A restaurant proprietor was prosecuted and fined £3 for an infringement of byelaw 6 (d) for failing to affix near a sanitary convenience a notice requesting employees to wash their hands after using the convenience.

With regard to the provision of byelaw 5 (b) which requires that returnable fish containers shall be returned in a clean condition, some administrative difficulty was experienced by reason of the varying times at which empty fish receptacles are returned by retailers. With a view to the byelaw requirement being publicised and to effect an improvement in the position generally, letters were sent to more than 650 wet fish retailers in the City calling their attention to the provisions and requesting them to ensure that empty fish boxes are cleansed before return.

It has been ascertained that the response from the trade has been very satisfactory.

Registration of Food Vendors Outdoors.

In addition to the provisions of the new byelaws relating to the conditions of sale and exposure for sale of food in the open air, section 41 of the Manchester Corporation Act, 1946, requires that persons selling food from carts, barrows, etc., shall be registered with the Corporation. The Act further stipulates that premises used for the storage of food intended for sale from such vehicles shall also be registered.

Under section 66 of the local Act of 1934, food vendors must inscribe, exhibit or display their name and address on their food vehicles; this provision has been of particular value in facilitating the identification and supervision of itinerant food vendors.

There are 471 persons registered for the sale of food outdoors, the majority operating in the central areas of the City; those trading in the outer districts are mainly retailers of greengrocery, fruit and fish. The registrations include 23 persons selling snacks and beverages from mobile vehicles and 8 fried fish and chip vendors.

The number of premises registered for the storage of food for sale by outdoor vendors is now 142, some of the premises being shared by several street traders. The supervision of these storage premises and of the vehicles used by food vendors disclosed, with a few exceptions, a satisfactory standard of maintenance. In those cases in which cautions were issued, an improvement resulted and in no instance did it prove necessary to apply the provisions in the Act of 1946 relating to revocation of registration.

A person was prosecuted, after a previous caution, for selling food from a barrow without being registered for the purpose. A fine of £2 10s. was imposed.

In order to encourage habits of cleanliness, especially as to hand-washing after the use of a sanitary convenience, registered food vendors and other persons engaged in the delivery of food are granted permits to use, free of charge, the washing facilities at certain public conveniences in the city.

Under the provisions of Section 61 of the Manchester Corporation Act, 1950, it became necessary, as from the 1st January, 1951, for persons engaged in street trading, with certain specified exemptions, to be registered with the Corporation ; these powers have been carried into effect.

So far as vendors of food in the street are concerned, registration is operative under these provisions, in addition to registration as food vendors outdoors under Section 41 of the local Act of 1946.

FOOD AND DRUGS ADULTERATION.

Administration of the Statutes and Regulations concerned with the prevention and detection of the adulteration or misrepresentation of food and drugs has been maintained at the level of previous years. The incidence of adulteration was relatively slight in extent and was confined mainly to milk, little evidence of irregularities having been revealed by the sampling and examination of other articles of food.

Although the activities of the sampling officers are mainly concerned with those articles of food commonly found in the average household larder, the wide range of articles sampled during the year is indicative of the comprehensive scope of the term " food " in the Food and Drugs Act.

In the course of their duties the officers visited all types of premises and places where food and drugs are sold, including grocers, dairies, butchers, snack bars, mobile food " shops," departmental stores, markets, pharmacists, licensed premises, farms, hawkers' vehicles, etc. These visits and the contacts with all kinds of food traders disclosed evidence of the care taken by most vendors to purchase reliable food, particularly the pre-packed varieties. Apart from the need to preserve a reputation for trading integrity, retailers in general realise that although it is an offence under the Food and Drugs Act to sell an article of food or a drug not of the nature substance or quality demanded, there are safeguards against conviction where a vendor has availed himself of provisions in the Act designed to protect him against default by other persons.

The requirements of the Food Standards and Labelling Orders and the resultant careful nature of claims as to their products, made by manufacturers and packers in the labelling of pre-packed food, are of undoubted value in the protection of purchasers ; it is noted that false or misleading claims are much more infrequent than formerly. The introduction of printed statements of quantitative and qualitative content of most pre-packed foods has benefited trader and consumer alike and there is evidence that the public is becoming more conscious of this development.

Samples of food and drugs submitted during the year to the Public Analyst totalled 3,220, of which 1,331 were milk samples, including 211 samples obtained by the Milk Control Inspectors.

Milk samples which did not comply with the Sale of Milk Regulations, 1939 (i.e. 3 per cent. fat and 8.5 per cent. solids not fat) totalled 126 ; of this number 12 samples from 6 farmers were deemed to warrant the institution of legal proceedings, which resulted in the imposition of fines and costs amounting to £62 10s. 8d.

In the remaining cases, which related to deficiencies, etc. of a minor character, cautionary intimations were sent when considered necessary.

Among the various foods, other than milk, obtained by the sampling officers for analysis, were several which failed to comply with the relevant requirements, but in view of reports on these samples by the Public Analyst, legal proceedings were not taken. Several of these samples revealed evidence of deterioration of the food concerned and action was taken under the clauses of the Act relating to unsound food. In these cases the stocks were destroyed voluntarily or surrendered for destruction to food inspectors in the Markets Department. The commodities included synthetic colouring, pickles, cake mixtures and biscuits.

A sample of self-raising flour had an abnormal flavour and was deficient in available carbon dioxide. Stocks were withdrawn by the manufacturers.

Other samples contravened the Labelling of Food Orders and were reported for administrative action to the Ministry of Food ; these foods were all pre-packed articles and included imitation cream powder, cake mixture, pepper compound, celery salt and seed tapioca.

Special letters of caution were sent in connection with the following foods and drugs which failed to comply with the requirements of the Acts or Orders :—

A sample of cake with a misleading label.

A sample of ground cinnamon which contained other spices.

A sample of mincemeat deficient in soluble solids.

A sample of coffee and chicory essence deficient in caffeine.

A sample of ice cream deficient in fat.

A sample of lentils containing small stones and portions of insects.

A sample of sago containing tapioca.

Three samples of sausages deficient in meat content.

One sample of aspirins wrongly labelled in a minor particular.

Cautions were also sent to the importers of a brand of canned sausages from Portugal (a fly was present) ; a brand of canned luncheon meat from Holland (finger bandage was inside) ; a brand of canned strawberries from Denmark (a beetle was present).

A detailed tabular statement is given below with the particulars of the various food and drugs samples which contravened the Acts and Orders, together with the administrative or other action taken in each case.

Adulterated and Other Unsatisfactory Samples and action taken.

[illegible]

* Followed by formal samples where necessary.

† Cautioned or samples repeated.

**Public Health (Preservatives, etc., in Food)
Regulations, 1925—1948.**

The regulations specify limited quantities of approved preservatives used in food and prohibit the use of other preservatives, certain colouring matters, etc. No contraventions were reported by the Public Analyst during the year but following a communication from a Port Authority, enquiries were instituted to trace the disposal of a consignment of imported concentrated fruit juice which contained excessive preservatives and was destined for manufacturers in Manchester. The enquiries were concluded satisfactorily after it had been ascertained that the commodities concerned had been processed and diluted to reduce the concentration of the preservative present.

Public Health (Condensed Milk) Regulations, 1923-1948.

Public Health (Dried Milk) Regulations, 1923-1948.

22 samples of these foods were submitted to the Public Analyst, but no contraventions were reported. The quality and labelling requirements were in accordance with the provisions of the Act and Regulations.

Butter and Margarine Factories and Wholesale Premises.

101 premises are registered in the City. Inspections were made at each establishment for the presence of adulterants and that there is a structural division of the premises where both butter and margarine are handled and stored. No contraventions were reported.

Food Standards (Ice Cream) Order, 1951.

The order prescribes that ice cream shall contain not less than 5 per cent. fat, 10 per cent. sugar and $7\frac{1}{2}$ per cent. milk solids other than fat, and it permits an alternative standard for ice cream containing fruit pulp or fruit puree and prescribes a special standard for Parev (Kosher) ice sold under that description. 35 samples of ice cream were submitted to the Public Analyst, one of which was reported to contain less than 5 per cent. fat. In this case a cautionary letter was sent to the manufacturer.

In addition to their normal activities the sampling officers obtained 504 samples of meat products for research purposes.

Water Supply.

The water supply to the City is derived from reservoirs at Thirlmere and Haweswater in the Lake District—which constitute the main sources of supply—and a supplementary supply from upland reservoirs in the Longdendale Valley, about 18 miles distant from the City, approximately 20 million gallons daily being available from the latter source.

Eleven service reservoirs at Prestwich, Heaton Park, Audenshaw, Godley, Denton, Gorton and Bowdon are used to distribute water throughout the City.

In addition, parts of Wythenshawe and other southern areas are served from trunk mains fed from one of the mains in the Thirlmere Aqueduct.

The purity of the town's water is systematically checked by bacteriological and chemical examinations. Samples are obtained, as a routine measure and upon complaint, at dwelling-houses, hospitals, institutions and business premises, etc.

With the exception of two samples, which revealed slight contamination, the samples examined during the year were reported to be bacteriologically satisfactory; the results are shown in the following tabular statement :—

| District | No. of Samples | Samples free from Coliform Bacteria | Faecal Coli found | | Non-faecal Coli found | | Service Reservoir or Aqueduct | Source |
|--------------------|----------------|-------------------------------------|-------------------|------------------|-----------------------|------------------|---|-------------|
| | | | No. of Samples | No. per 100 Mls. | No. of Samples | No. per 100 Mls. | | |
| Crumpsall | 5 | 5 | — | — | — | — | Heaton Park | Thirlmere |
| Blackley | 4 | 4 | — | — | — | — | Heaton Park | Thirlmere |
| Newton Heath .. | 3 | 3 | — | — | — | — | Godley | Longdendale |
| Withington.. .. | 5 | 5 | — | — | — | — | Audenshaw | Longdendale |
| Hulme.. .. . | 3 | 3 | — | — | — | — | Audenshaw or Audenshaw and Denton (Mixed) | Longdendale |
| Longsight | 8 | 7 | — | — | 1* | 3* | * Audenshaw and Denton (Mixed) or Audenshaw | Longdendale |
| Chorlton-cum-Hardy | 2 | 1 | — | — | 1* | 5* | * Audenshaw or Audenshaw and Denton (Mixed) | Longdendale |
| Moss Side | 1 | 1 | — | — | — | — | Audenshaw or Audenshaw and Denton (Mixed) | Longdendale |
| Northenden .. | 3 | 3 | — | — | — | — | Thirlmere | Thirlmere |
| Baguley | 2 | 2 | — | — | — | — | No. 3 line Thirlmere | Thirlmere |
| Rusholme | 1 | 1 | — | — | — | — | No. 3 line Audenshaw and Denton (Mixed) | Longdendale |
| Levenshulme .. | 1 | 1 | — | — | — | — | Audenshaw | Longdendale |
| Beswick | 1 | 1 | — | — | — | — | Audenshaw | Longdendale |
| Whalley Range .. | 1 | 1 | — | — | — | — | Audenshaw and Denton (Mixed) | Longdendale |

* Unsatisfactory samples.

In addition to the check sampling carried out by the Health Department, close co-operation is maintained with the Waterworks Department and reports on samples requiring comment or observations are forwarded to that department. Copies of routine laboratory reports prepared in the Waterworks Department for the Engineer and Manager are forwarded periodically to the Medical Officer of Health.

The following information has been furnished by the Engineer and Manager of the Waterworks Department on the City's water supplies in 1951.

The water supply has been satisfactory both in quality and quantity.

Regular samples are taken for bacteriological examination of the raw water and of the treated water going into supply. Out of the 584 samples examined in 1951, 509 were found to be free from bacteria. (Typical chemical analyses of the sources of supply are shown later.)

The Thirlmere and Longdendale supplies are treated with hydrated lime. This has proved effective in limiting the maximum lead content found in samples given overnight contact with lead service pipes to about 0.05 parts per million.

It has proved impracticable to prevent access of seagulls to the larger service reservoirs. Pollution from this source is dealt with by chlorination at the outlets of the reservoirs.

The number of dwelling-houses supplied is 205,716 and the population is approximately 704,500. All dwelling-houses are supplied from water mains.

BACTERIOLOGICAL REPORT. *January to December, 1951.*
Aqueducts, and Service Reservoirs.

| | Total number of samples | Samples free from Coliform bacteria | Faecal Coli present | | Non-faecal Coli present | |
|---------------------------|-------------------------|-------------------------------------|---------------------|------------------|-------------------------|------------------|
| | | | No. of samples | No. per 100 mls. | No. of samples | No. per 100 mls. |
| Thirlmere Aqueduct .. | 0 | 0 | 0 | — | 0 | — |
| Longdendale Aqueduct | 49 | 4 | 38 | 1-90 | 36 | 1-35 |
| <i>Service Reservoirs</i> | | | | | | |
| Audenshaw No. 1 .. | 12 | 1 | 11 | 2-350 | 10 | 1-110 |
| „ No. 2 .. | 12 | 0 | 11 | 1-350 | 10 | 1-90 |
| „ No. 3 .. | 17 | 1 | 13 | 3-900 | 16 | 1-250 |
| Denton No. 1 .. | 11 | 6 | 3 | 1-2 | 3 | 1 |
| „ No. 2 .. | 11 | 10 | 1 | 1 | 0 | — |
| Godley Inlet .. | 52 | 44 | 5 | 1-50 * | 5 | 1-3 |
| Godley Outlet .. | 52 | 45 | 4 | 1-3 † | 4 | 1 |
| Heaton Park .. | 13 | 0 | 13 | 3-600 | 10 | 1-35 |
| Prestwich No. 1 .. | 49 | 37 | 7 | 1-13 | 7 | 1-3 |

* This is the chlorinated Longdendale Aqueduct water as entering Godley Reservoir. Excluding the one sample which had the 50 faecal coli per 100 mls. (repeat sample was free from coli), the remaining 4 samples had 1 to 3 faecal coli per 100 mls.

† Godley Outlet represents the water as entering the distribution system. When the 3 faecal coli per 100 mls. were found, a repeat sample was taken next day and it was free from coli. The remaining 3 samples with faecal coli—2, 1 and 1 per 100 mls. respectively—were taken at widely different times, March, June and November respectively.

Water from Haweswater and Thirlmere lakes is chlorinated in the aqueduct near the headworks. It is rechlorinated before it enters the Manchester area of supply. Results for the direct distributed supply from Thirlmere aqueduct are given in the next table.

Longdendale aqueduct water is chlorinated before it enters the Godley reservoir and sufficient chlorine (as chloramine) is added to maintain a residual in the water leaving the reservoir.

BACTERIOLOGICAL REPORT. *January to December, 1951.*
Chlorinated Water Supplies.

| | Total number of samples | Samples free from Coliform bacteria | Faecal Coli present | | Non faecal Coli present | |
|-----------------------|-------------------------|-------------------------------------|---------------------|------------------|-------------------------|------------------|
| | | | No. of samples | No. per 100 mls. | No. of samples | No. per 100 mls. |
| Audenshaw | 136 | 99 | 14 | 1-90 <i>a</i> | 32 | 1-50 <i>b</i> |
| Denton | 63 | 58 | 3 | 1 | 2 | 1 |
| Godley | 90 | 82 | 0 | — | 8 | 1-13 <i>c</i> |
| Heaton Park .. | 101 | 85 | 7 | 1-50 <i>d</i> | 14 | 1-90 <i>e</i> |
| Prestwich | 77 | 71 | 1 | 1 | 5 | 1 |
| Thirlmere Aqueduct .. | 117 | 114 | 1 | 1 | 2 | 1 |
| Total | 584 | 509 | 26 | — | 63 | — |

NOTES :—

(a) Four samples out of 6 taken on the one day contained 90, 13, 90 and 35 faecal coli plus a few non-faecal types on account of faulty chlorination arising from the icing of the chlorine plant. Repeat samples taken next day were excellent. Excluding the above, the remaining 10 samples with faecal coli were as follows :—

8 samples with 1, 1 sample with 2 and 1 sample with 3 coli per 100 mls., most of which occurred during the period of “after-growth” in the mains from June to August. (See Note (b)).

(b) Two samples with 35 and 50 non-faecal coli were obtained due to an unsterilised new 4 in. main. This was corrected.

From 27th June to 9th August a period of "after-growths" in the mains was experienced, the result being as follows :—

| <i>Non-faecal coli</i> <i>per 100 mls.</i> | <i>Samples</i> |
|---|----------------|
| 1 | 6 |
| 2 | 4 |
| 3 | 3 |
| 4 | 1 |
| 8 | 1 |
| 13 | 2 |
| 35 | 1 |
| Total 18 samples. | |

The last three samples were taken on 1 day and are probably due to disturbed conditions.

The remaining odd samples contained only 1 or 2 non-faecal coli.

- (c) 2 samples with 13 and 5 non-faecal coli were taken 8 days apart, but repeat samples taken the next day were free from coli. Remaining samples contained :

2 samples with 1 coli }
3 samples with 2 coli } All non-faecal type.
1 sample with 3 coli }

- (d) Sample with 50 faecal coli obtained in 1 house but 4 other samples taken on the same day were free from coli. Repeat samples were free also.

35 faecal coli and 14 non-faecal coli obtained in a sample when emergency chlorination to cover "risk" days of electricity power cuts were being tried out. The method used was found to be too erratic, resulting in faulty chlorination, which accounts for the above result. Method was abandoned after about 2 hours working. Repeat samples were free from coli.

Remaining samples with 1 faecal coli per 100 mls.—5 in number—were obtained at odd times during the year.

- (e) 1 sample with 25 non-faecal coli could not be accounted for and 4 repeat samples were free from coli.

2 samples with 16 and 90 non-faecal coli were due to disturbed conditions in the mains on account of reversal of water flow. 3 other samples taken outside the disturbed area on the same day were free from coli.

7 samples with 1 coli and 2 with 2 coli, all non-faecal, were taken at odd times, when 2 to 4 other samples taken at the same time were free from coli.

Many repeat samples were taken also and these, too, were free from coli.

ADDITIONAL RESULTS :

| | Total number of samples | Samples free from coliform bacteria | Faecal coli present | | Non-faecal coli present | |
|--------------------------------------|----------------------------------|--|---------------------|---------------------|-------------------------|---------------------|
| | | | No. of samples | No. per 100 mls. | No. of samples | No. per 100 mls. |
| <i>Service Reservoirs</i> | | | | | | |
| Bowdon | 1 | 1 | 0 | — | 0 | — |
| Gorton Upper | 10 | 1 | 9 | 1—11 | 8 | 1—17 |
| Gorton Lower | 11 | 2 | 9 | 1—30 | 8 | 1—25 |
| <i>Chlorinated Supplies</i> | | | | | | |
| Bowdon | 52 | 44 | 4 | 1—2 | 7 | 1—3 |
| Denton Purification Plant | 69 | 62 | 0 | — | 7 | 1—160 ^a |
| Total | 121 | 106 | 4 | — | 14 | — |

NOTE :—

- (a) Denton Purification Plant supply is not chlorinated.

4 of these samples were taken at Prince's Bridge by means of a standpipe, and these contained 1, 3, 35 and 160 non-faecal coli per 100 mls. Duplicate samples on the same day taken at Middlewood Street, Salford, were all free from coli. This method of sampling was abandoned at the beginning of March. The samples were polluted at the standpipe.

A large number of duplicate samples taken at Middlewood Street and from a sampling tube fitted to the pressure gauge at Prince's Bridge all gave samples free from coli.

Practically all samples are now taken at Middlewood Street.

Only 3 samples have shown coli, all non-faecal type, and the coli counts were 1, 2 and 2 per 100 mls.

PLUMBO-SOLVENCY *January to December, 1951.*

THIRLMERE SUPPLY.

The untreated water has a low plumbo-solvent action but it is neutralised with hydrated lime so as to raise the pH value of the water to 7.0 to 7.5. Plumbo-solvency tests have not been carried out on this supply.

LONGDENDALE SUPPLY.

The untreated water has a marked plumbo-solvent action. It is treated with hydrated lime to raise the pH value to 7.0 or over. The following tests have been carried out during 1951 :—

| Date | Contact with lead service (hours) | pH value | Lead content as Pb. Part per million |
|-----------------------|-----------------------------------|----------|--------------------------------------|
| 16th April | 8½ | 7.2 | 0.05 |
| 17th April | 9 | 7.0 | 0.05 |
| 27th December | 8¼ | 6.9 | 0.01 |

TYPICAL ANALYSES. *January to December, 1951.*

THIRLMERE AND HAWESWATER LAKES.

The supply from these lakes is subject only to slight variations and the following are typical analyses.

| | <i>Thirlmere</i> | <i>Haweswater</i> |
|--|------------------|-------------------|
| pH value | 6.4 | 7.1 |
| Colour, as p.p.m. platinum.. .. . | 11 | 13 |
| Turbidity, as p.p.m. | 0.5 | 4.2 |
| <i>Parts per million</i> | | |
| Total solids dried at 180°C. | 30.8 | 32.4 |
| Free acidity as CO ₂ | 2.5 | 2.0 |
| Alkalinity as CaCO ₃ | 9.6 | 13.0 |
| Total hardness as CaCO ₃ | 16.3 | 18.8 |
| Chlorides as Cl ₂ | 7.0 | 7.2 |
| Nitrates as N ₂ | 0.17 | 0.14 |
| Ammoniacal nitrogen, N ₂ | 0.015 | 0.010 |
| Albuminoid nitrogen, N ₂ | 0.028 | 0.042 |
| Oxygen absorbed test, 4 hours at 27°C. | 0.78 | 0.70 |
| Silica as SiO ₂ | 2.0 | 1.5 |
| Iron as Fe | 0.10 | 0.13 |
| Manganese as Mn | 0.06 | trace |

THIRLMERE SUPPLY. *As taken from house taps.*

TYPICAL ANALYSES. *January to December, 1951.*

| Date | May 21 | November 12 |
|--|-------------|-------------|
| Lab. No. | 2940 | 3110 |
| pH value | 7.1 | 7.3 |
| Colour, as p.p.m. platinum.. .. . | 13 | 10 |
| Turbidity, as p.p.m. silica | 3.2 | 3.4 |
| Odour: Cold or hot | nil | nil |
| Taste: Cold or hot | nil | nil |
| <i>Parts per million</i> | | |
| Total solids dried at 180°C. | 36.0 | 31.6 |
| Free acidity as CO ₂ | 1.0 | 1.5 |
| Alkalinity as CaCO ₃ | 10.0 | 12.0 |
| Total hardness as CaCO ₃ | 18 | 20 |
| Chlorides as Cl ₂ | 7.0 | 7.0 |
| Nitrates as N ₂ | 0.33 | 0.35 |
| Nitrites as N ₂ | faint trace | nil |
| Ammoniacal nitrogen, N ₂ | 0.003 | nil |
| Albuminoid nitrogen, N ₂ | 0.023 | 0.028 |
| Oxygen absorbed test, 4 hours at 27°C. | 0.61 | 0.81 |
| Silica as SiO ₂ | 2.0 | 2.0 |
| Iron as Fe | 0.10 | 0.12 |
| Manganese as Mn | nil | nil |

NOTE.—Traces of nitrites, when present, are derived from the chloramine treatment.

TYPICAL ANALYSES. *January to December, 1951.*

LONGDENDALE AQUEDUCT SUPPLY. RAW WATER.

This supply is subject to wide variations during the year as indicated by the following results :—

| | | | | |
|--|---------|-------|----|-------|
| pH value | .. .. . | 4.0 | to | 6.0 |
| Colour, as p.p.m. platinum.. | .. .. . | 25 | to | 84 |
| Turbidity, p.p.m. silica | .. .. . | 5.5 | to | 25 |
| <i>Parts per million</i> | | | | |
| Total solids, dried at 180°C. | .. .. . | 60 | to | 70 |
| Free acidity as CO ₂ | .. .. . | 4.0 | to | 9.0 |
| Alkalinity as CaCO ₃ | .. .. . | nil | to | 5.0 |
| Total hardness as CaCO ₃ | .. .. . | 25 | to | 30 |
| Chlorides as Cl ₂ | .. .. . | 7.0 | to | 10.0 |
| Nitrates as N ₂ | .. .. . | 0.47 | to | 1.00 |
| Ammoniacal nitrogen, as N ₂ | .. .. . | 0.010 | to | 0.060 |
| Albuminoid nitrogen, as N ₂ | .. .. . | 0.036 | to | 0.084 |
| Oxygen absorbed test, 4 hours at 27°C. | .. | 1.30 | to | 3.40 |
| Silica as SiO ₂ | .. .. . | 7.0 | to | 10.0 |
| Iron as Fe | .. .. . | 0.18 | to | 0.54 |
| Manganese as Mn | .. .. . | 0.08 | to | 0.19 |

LONGDENDALE AQUEDUCT SUPPLY. *Taken as leaving Godley Reservoir.*

| | | | | |
|--|-------------|---------------|-------------|--------------|
| | Date.. .. | February 19th | July 2nd. | October 15th |
| | Lab. No. .. | 2869 | 2978 | 3083 |
| pH value.. .. . | .. .. . | 7.1 | 9.1 | 8.6 |
| Colour, as p.p.m. platinum.. | .. | 42 | 25 | 69 |
| Turbidity, p.p.m. silica | .. .. | 15.3 | 5.6 | 16.6 |
| Odour: Cold | .. .. . | nil | nil | nil |
| Hot | .. .. . | faint earthy | nil | faint earthy |
| Taste: Cold or hot | .. .. . | nil | nil | nil |
| <i>Parts per million</i> | | | | |
| Total solids dried at 180°C | .. | 76.8 | 76.0 | 73.2 |
| Free acidity as CO ₂ | .. .. . | 2.0 | nil | nil |
| Free alkalinity as CaCO ₃ | .. .. | nil | 5.0 | 2.0 |
| Total alkalinity as CaCO ₃ | .. .. | 9.0 | 13.0 | 11.0 |
| Total hardness as CaCO ₃ | .. .. | 34.5 | 37 | 33.5 |
| Chlorides as Cl ₂ | .. .. . | 10.0 | 10.0 | 10.0 |
| Nitrates as N ₂ | .. .. . | 0.99 | 0.82 | 0.74 |
| Nitrites as N ₂.. .. . | .. .. . | nil | faint trace | nil |
| Ammoniacal nitrogen, as N ₂ | .. | 0.165 | 0.155 | 0.155 |
| Albuminoid nitrogen, as N ₂ | .. | 0.077 | 0.044 | 0.064 |
| Oxygen absorbed test 4 hours at 27°C. | | 2.09 | 1.31 | 2.70 |
| Silica as SiO ₂ | .. .. . | 7.5 | 8.0 | 8.0 |
| Iron as Fe | .. .. . | 0.25 | 0.18 | 0.45 |
| Manganese as Mn | .. .. . | 0.08 | 0.19 | 0.11 |
| Residual chlorine | .. .. . | 0.30 | 0.03 | 0.15 |

NOTE.—This water is sterilised by the chloramine process, which accounts for the bulk of the ammoniacal nitrogen present.

Traces of nitrites, when present, are derived from this treatment also.

Dwelling-house Disrepair.

As a consequence of the continued deterioration of house property, the work of the district sanitary inspectors is still concentrated largely on action concerned with the abatement of nuisances arising from disrepair in privately owned dwelling-houses.

There is abundant evidence of the acceleration of structural decay due to the virtual cessation of repairs of a preventive character, particularly where the property is within potential clearance areas.

In many of these cases roofs are so dilapidated as to make repair work a hazardous venture which some contractors will not undertake. Stripping, reslating and the renewal of laths and spars is often found to be necessary, but the costs involved are clearly uneconomic in property of this type. In some instances repeated roof leakages have contributed to the acceleration of decay and the development of dangerous structural conditions, leading to demolition of the houses.

The action taken by the department is designed to extend, during the existing serious housing shortage, the life of as many houses as possible and to ensure that occupied houses are rendered weathertight and free from serious nuisance arising from disrepair.

It is noted that with the continued increase in repair costs some owners attempt to meet the situation by employing jobbers having little knowledge of repair technique, with the result that the work done is often of an unsatisfactory nature and gives rise to protracted correspondence and statutory procedure.

In an increasing number of cases remedial action is taken by owners only when court proceedings are imminent, with corresponding discomfort to the occupants of the houses concerned.

Many cases of genuine hardship arising from the increased cost of property maintenance are revealed in interviews and correspondence with owners of worn-out property which has obviously become a liability instead of a source of income. There can be little doubt that the resumption of clearance action would be welcomed by such owners, who make it clear that they are anxious to relinquish their house property.

Serious difficulties have again arisen in dealing with conditions resulting from the demolition of individual houses in terraces, whereby $4\frac{1}{2}$ in. party walls of remaining occupied houses are left exposed to penetrating wind and rain. The owners are usually elusive individuals who have acquired worn-out property in the anticipation of rapid deterioration and demolition for the value of the building materials and have no intention to effect repairs.

Where it proves impossible to trace these persons and in other cases where dilapidated houses have been abandoned by the owner, it has been necessary during the year to take action by service of notices under Section 285(f) of the Public Health Act, 1936, respecting 124 houses. In the majority of these cases, following the necessary court procedure under the nuisance sections of the same Act, repairs of an urgent character were carried out by the department, the cost of the work being recoverable from the property, usually in the form of weekly rental payments.

Complaints relating to housing disrepair exceeded 17,300 and involved nearly 62,000 primary and subsequent inspections, in addition to a large volume of administrative and clerical work in the preparation of informal and statutory notices, correspondence, etc.

It was necessary to institute legal proceedings concerning owners' failure to remedy structural defects at 130 houses, fines totalling £53 being imposed with costs amounting to £20. These proceedings were additional to the previously mentioned cases in which the owners of the property could not be traced.

The Drainage, etc., works branch of the Department carried out repairs to 573 premises either in default or at the request of owners upon whom notice had been served; the latter work being executed under agreements made under the provisions of Section 275 of the Public Health Act, 1936.

In addition works of maintenance of public sewers in private property were carried out at 704 premises under Sections 23/24 of the Public Health Act, 1936, and Section 33 of the Manchester Corporation Act, 1946. The expenses so incurred are recoverable from the owners of the premises served by the lengths of sewers concerned.

Applications for certificates of disrepair of dwelling-houses, under the Rent and Mortgage (Restrictions) Acts, 1920/1939, were received from 9 tenants, certificates being issued in 5 of these cases where the Health Committee were satisfied that the houses were not in a reasonable state of repair.

In one case the owner remedied the defects which gave rise to the application for a certificate prior to the consideration of the case by the Committee; the certificate was withheld accordingly. In three cases the applications were not pursued after the tenants had been advised by the Town Clerk that the houses were subject to "new control" under the 1939 Act and that the certificates of disrepair would be of limited value to the applicants.

In every case independent action was taken by the department to ensure that defects giving rise to nuisance were remedied.

Examination of Drains.

In the investigation of complaints concerning choked or defective drains it is often impracticable from a superficial inspection to ascertain the actual condition or course of drainage systems. It proved necessary at 198 premises to invoke the provisions of Section 48 of the Public Health Act, 1936, whereby the Corporation may open the ground on private premises to examine the condition of drains, etc., and if necessary apply specified tests.

The Manchester Corporation Act, 1946, contains further powers in this respect, enabling the Medical Officer of Health or Sanitary Inspector to cause expeditious action to be taken in these cases. In every case, before the examinations were carried out, at least 24 hours' notice was given to the occupiers of the premises concerned, under the provisions of Section 287 of the Public Health Act.

The complaints which gave rise to the examinations related to percolations of offensive liquid into basements of commercial buildings, cellars and sub-floor cavities of houses, and subsidences in yards, gardens and passages at points above the probable course of drains.

In many cases the existence of rat burrows revealed the existence of fractured drain pipes or defective joints from which "sewer" rats had emerged in search of food or breeding places. In the course of these examinations, excavations are made at key points to ascertain the condition of the conduits and to determine exactly which premises drain into them. The latter precaution is particularly important in relation to the provisions of Sections 23/24 of the Public Health Act relating to the recovery of the cost of maintaining public sewers on private premises.

The conditions so disclosed become the basis of action under Section 39 of the Public Health Act, when drains are involved. When the defective conduits are found to be public sewers, the necessary works of repair, etc., are carried out by the department under Sections 23 and 24 of the Act, the expenses incurred being charged to the owners of the premises served by the length of public sewer concerned.

Some drainage examinations revealed accumulations of clear sub-soil water in floor cavities of houses or other buildings, the depth of the water varying in amount under different weather conditions.

In some cases no provision had been made originally to drain the site of the building and it was necessary to require the provision of sub-soil drains with a proper outfall. In other instances it was found that the sub-soil drains under the site had ceased to function owing to silting up. In other cases existing land-drains had become ineffective owing to a change in the direction or level of ground water in the land beneath or adjoining the building concerned.

Reference was made in last year's report to the powers in Section 41 of the Manchester Corporation Act, 1950, to deal expeditiously with choked drains, private sewers, water closets and other sanitary appliances. Under these powers the Medical Officer of Health or Sanitary Inspector may authorise the service of a notice requiring the owner or occupier of premises to remedy choked drains, etc., within 48 hours. This procedure has eliminated the long delays which often occurred in dealing with choked sanitary appliances prior to the Act of 1950. During 1951, 546 such notices were served, mainly respecting choked drains; it proved necessary for the department to carry out the work in default in only 56 of these cases.

The new powers have operated quite smoothly and in no case has a person upon whom notice has been served resorted to the court procedure as to expenses, etc., open to him under the Act.

Common Lodging Houses

Common lodging houses are visited systematically by the district sanitary inspectors under statutory and byelaw provisions relating to sanitary accommodation, washing facilities, cleanliness, overcrowding and the prevention of the spread of infectious diseases.

The means of escape in case of fire are subject to approval by the Corporation, supervision in this respect being exercised by the City Architect.

Registration or renewal is conditional upon the Corporation being satisfied as to the fitness of the keeper and his deputy, that the premises are suitable for use, that sanitation and water supply are satisfactory, and that in other respects, including means of escape in case of fire, the premises are suitably equipped for use as a common lodging house.

In cases in which the standard of maintenance is not entirely satisfactory, renewal of registration is granted for a shorter period than the customary 12 months. In one case of this type the keeper was granted a period of three months in which to remedy unsatisfactory conditions, including infestation by vermin but, despite advice and encouragement given by the inspectors, little improvement ensued. The owners of the building subsequently terminated the tenancy of the building, which had accommodation for 227 men lodgers, many of whom had lived there for long periods. Two other common lodging houses closed down during the year; one had accommodation for 319 men and the other for 30 men. In these cases it was evident that the proprietors could no longer meet the increased cost of maintenance of the premises, renewal of equipment and cleansing arrangements.

Accommodation of this type has decreased steadily during the last few years, and this must of necessity accentuate the housing problem in the City. There are now 12 common lodging houses with total sleeping accommodation for 1,546 men and 210 women ; two of the establishments are hostels owned by the Corporation and controlled by the Health Committee, the number of beds being 454 for men and 210 for women. It is found that the establishments maintained by the Corporation and by social organisations have a better standard of equipment and amenities than the remainder. Proprietors of the latter type of houses are experiencing difficulty in obtaining suitable labour for cleaning the premises, equipment and bedding, but on the whole have achieved satisfactory standards during the year. In some cases it has been necessary to caution the keepers, but reasonable latitude has been extended to them having regard to their undoubted difficulties under present conditions.

Particular attention is paid to the repression of body lice, which are occasionally introduced by casual lodgers, despite the vigilance of the lodging-house keepers. The dormitories and other common rooms are regularly sprayed with D.D.T. compounds and the furniture and beds are treated with similar insecticides in powder form in addition to the normal cleansing procedure.

When lodgers are found by the management to be verminous they are advised to avail themselves of the facilities at the Corporation Clinic at Monsall Hospital, where 389 persons resident at common lodging houses were cleansed and their clothing disinfested, representing an increase of 152 over the corresponding number in the previous year. In the lodging houses which have appliances for steam disinfestation, infested bedding and other articles are dealt with at the establishments ; in other cases the infested articles are removed by the Corporation for disinfestation at the Monsall Clinic.

Houses Let in Lodgings.

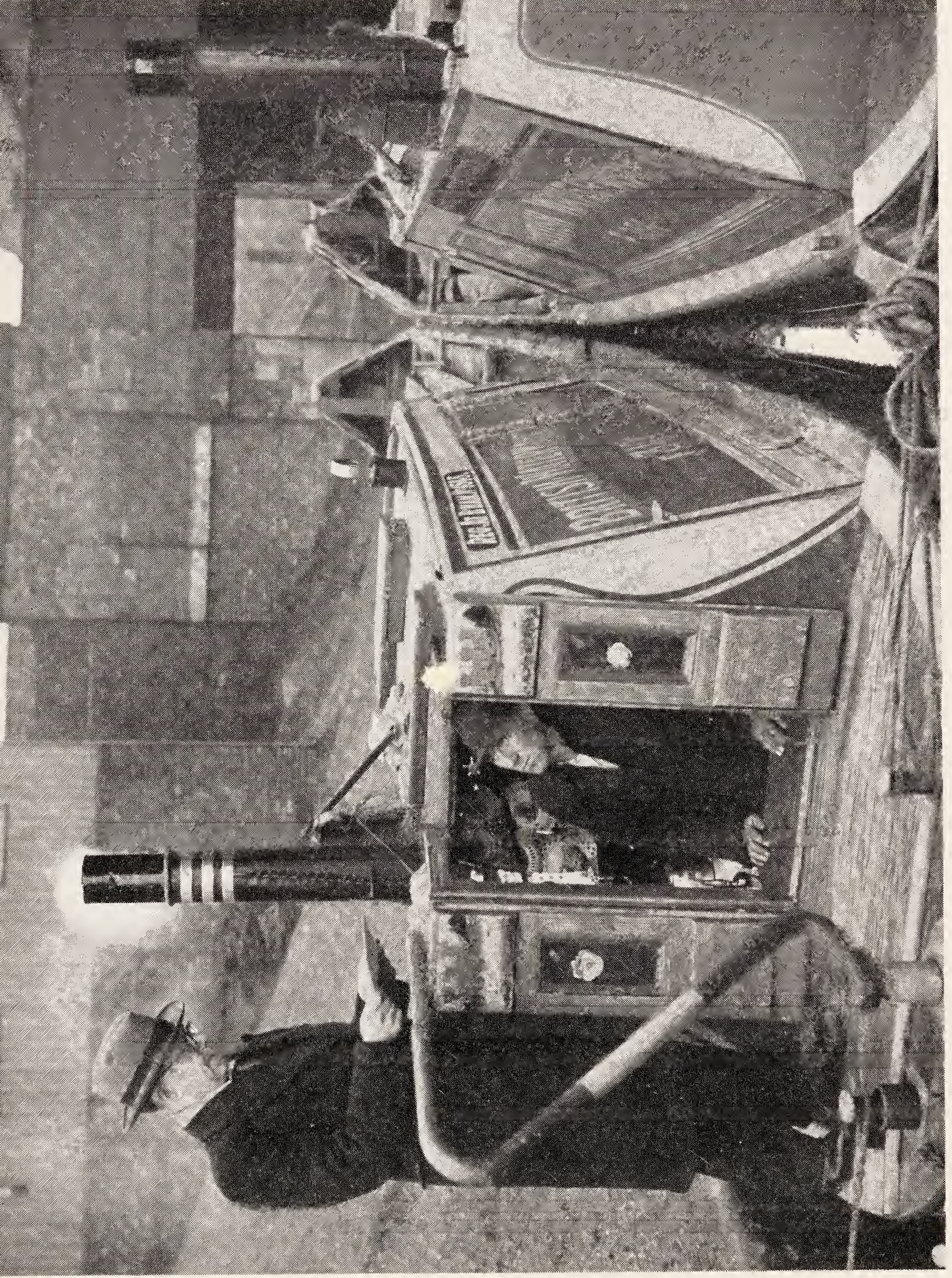
Houses which are let in lodgings or occupied by members of more than one family are subject to registration and inspection under byelaws made under Section 6 of the Housing Act, 1936.

Registration is necessary where there are two or more lodger families, but is not applied to houses in which married sons or daughters and their families live with their parents.

There are approximately 850 houses registered but it is probable that many persons have omitted to give notice to the Council—as required by the byelaws—of the letting of lodgings to which the byelaws apply. Owing to the pressure of other urgent duties, it has not been possible during the year to carry out a projected survey of the various districts to discover the existence of unregistered premises.

The main provisions of the byelaws refer to adequacy of closet accommodation, water supply, suitability of accommodation for the storage, preparation and cooking of food, prevention of and safety from fire, cleansing and redecoration of premises and the prevention of nuisances.

The inspections revealed a satisfactory standard of maintenance on the whole, but it was necessary to serve 11 notices respecting byelaw infringements concerning inadequate sanitary accommodation and facilities for washing clothes and for the preparation of food ; unsatisfactory ventilation, artificial lighting, handrails to staircases and for failure to carry out periodical cleansing of walls and ceilings of lodgers' rooms, etc.



CANAL BOAT INSPECTION—CHECKING REGISTRATION PARTICULARS

Legal proceedings were instituted for 5 byelaw infringements, resulting in the hearing being adjourned to give the proprietors a further opportunity of fulfilling the requirements of the byelaws, which were subsequently observed.

In 21 other cases unsatisfactory conditions were remedied as a result of informal intimations to the tenants concerned.

Reference was made in last year's report to the new powers under Section 57 of the Manchester Corporation Act, 1950, which has the effect of requiring a person who lets a house in lodgings to persons of the working classes to reside in the house unless a suitable person, approved by the Corporation, lives in the house and is responsible for its care, management and control.

The operation of these powers has resulted in many cases in the appointment of resident caretakers, with a noticeable improvement in the standard of maintenance, especially regarding the care of sanitary and other appliances used in common, general cleanliness and the prevention of misbehaviour by individual lodgers.

Canal Boats

The living accommodation on canal boats used for the conveyance of goods is supervised under the relevant provisions of the Public Health Act, 1936, and regulations made in 1878 under the Canal Boats Act. The number of inspections of such boats plying on canals within the City area totalled 721.

The general standard of maintenance and cleanliness was found to be very satisfactory and it was necessary to serve only 6 notices for 11 infringements of a minor character.

The standard of cleanliness of living quarters in the boats continues to improve and the satisfactory conditions found are especially commendable having regard to the limited space in the cabins, which are in effect a combined living-room, bedroom, kitchen and bathroom, often for husband and wife and young children.

Of the 193 boats registered in the City, 179 are believed to be in use, 8 of these are propelled by oil motor, the remainder being horse-drawn.

Two new power-driven boats belonging to the Manchester Ship Canal Co. and registered during the year, have living quarters of improved design, particular regard having been evinced for the comfort of the boatmen. These boats have a water closet installed in the after cabin, the fore cabin only being used for living purposes. It is understood that the company has ordered additional boats of this type.

No case of infectious disease on canal boats within the City was reported during the year.

Caravan Dwellings.

The unauthorised occupation of land in various parts of the City by dwellers in caravans and tents has increased in extent, and in many cases gave rise to the development of insanitary conditions and complaints from residents of houses in the vicinity.

Administrative action has been made more difficult by the evasive behaviour of the nomadic type of campers, who often give wrong names to the inspectors and remove their habitations to another part of the City when the operation of nuisance abatement procedure becomes imminent.

Statutory notices were served in respect of 69 caravans and tents and in 8 of these cases court proceedings ensued and nuisance orders were granted by the magistrates. In 6 cases further proceedings resulted in the imposition of fines totalling £38 4s., some of these relating to a continuing daily penalty.

In some instances it was necessary to defer action by reason of the medical circumstances of certain caravan dwellers, several of whom appeared to have come into the City area to obtain medical or hospital treatment.

Infectious Diseases.

The district sanitary inspectors investigated the circumstances concerned with the occurrence of the following notifiable diseases : cerebro-spinal fever, scarlet fever, diphtheria, erysipelas, dysentery, acute encephalitis and acute poliomyelitis.

Nearly 1,700 visits were made in this connection, the enquiries being concerned with the investigation of possible sources of infection, maintenance of isolation of cases nursed at home and the treatment of infected articles.

Insanitary conditions which were disclosed at some of the premises visited were dealt with by the customary informal and statutory action.

The inspectors also made 264 visits in tracing contacts with infected persons, including 119 enquiries concerning contacts with cases of smallpox occurring outside the City.

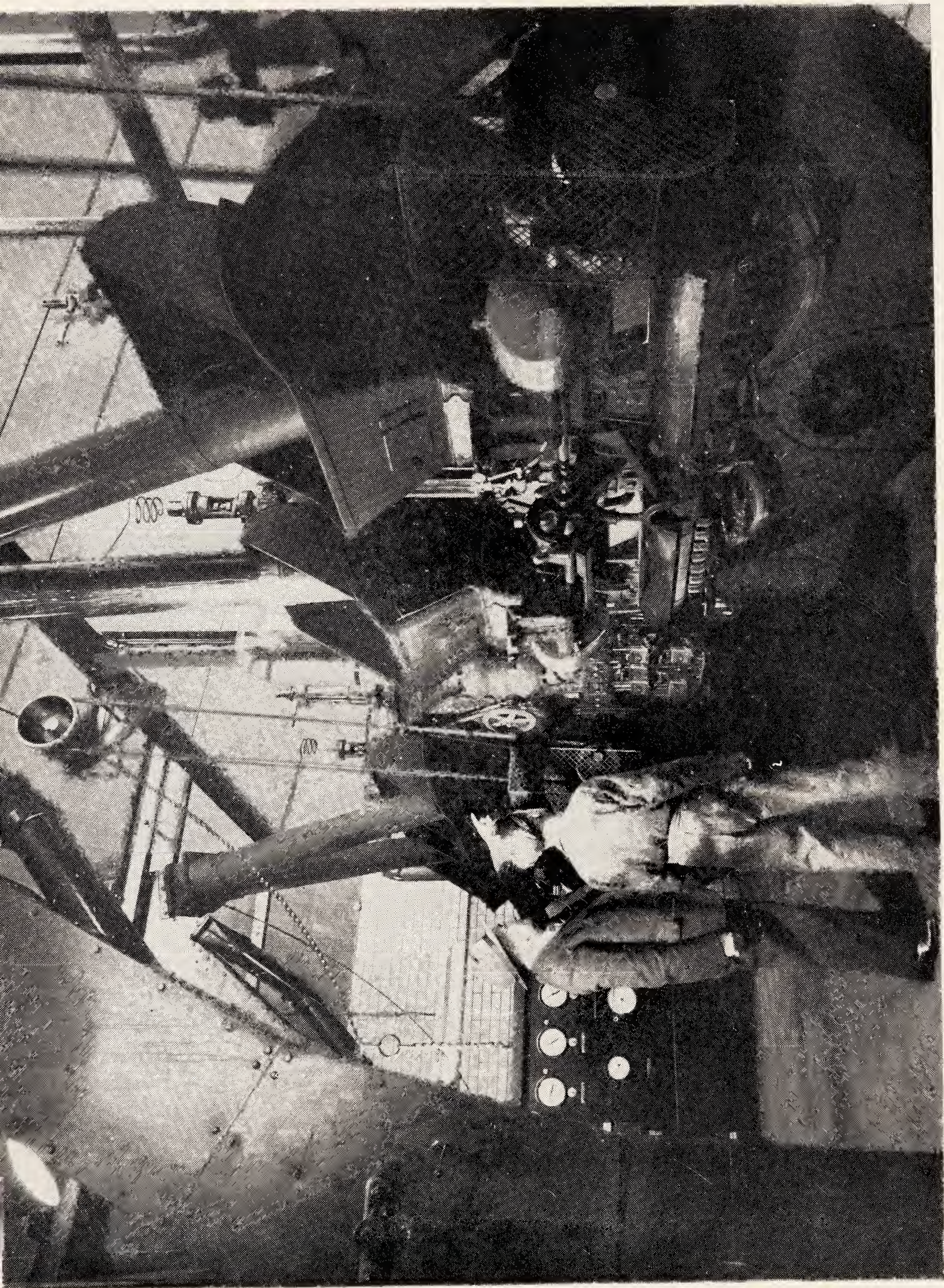
A rag gatherer was prosecuted under the provisions of Section 154 of the Public Health Act for giving toy balloons to children in exchange for rags and old clothes ; a penalty of 10/- was imposed by the magistrates.

Smoke Abatement

Although this branch of the department's activities has been restricted owing to inability to recruit qualified officers, the two remaining smoke inspectors have laboured manfully in the operation of the various enactments concerned with the reduction of atmospheric pollution by smoke throughout the City.

Difficulties arising from the national position as to fuel supplies have had an adverse effect on the efforts of the department in the field of smoke abatement. In many cases, manufacturers have been unable to obtain their normal kind of fuel and the resulting variations in quality and grade have taxed the ingenuity of boiler operatives in maintaining steam pressure and in the reduction of smoke emission. Whilst unusual grades of fuel may in some cases be regarded as suitable for the plant concerned, difficulties arise during the period necessary to change over to new firing methods ; the position is aggravated where the character of the fuel changes with nearly every delivery of coal. In those cases in which firemen have had little or no technical training, the adoption of the trial and error method prolongs the period of risk of excessive smoke emission.

In some cases the fuel supplied was quite unsuitable and tended to choke temporarily the feed to mechanical stokers, resulting in an unduly heavy subsequent discharge of fuel into the furnace. Bad grading of fuel also gave rise to uneven distribution over the fuel bed, leading to uneconomic conditions of combustion and the need for manual disturbance of the firebed, with consequent evolution of dense smoke.



INSPECTION OF NEW BOILER PLANT

Low grade fuels do not necessarily give rise to smoke nuisance, but when used for boilers with a heavy steam demand, the added frequency of cleaning out the furnaces to remove ash, shale, etc., makes it very difficult to obviate smoke emission and to maintain steam pressure. In these cases particularly, the employment of skilled firemen is essential to the achievement of satisfactory operation of boiler plant.

In conjunction with their statutory duties in the detection and abatement of smoke nuisance, the inspectors carry out a substantial amount of preventive work of an advisory nature. Industrialists in general are very co-operative when their attention is drawn to defects in their plant and frequently take the action necessary to attain operational efficiency ; in particular, increased interest has been taken in mechanical firing appliances.

A firm of chemical manufacturers has also installed a newly patented electronic control device to a mechanical coking stoker which has to meet a fluctuating load. By an intricate mechanism involving the use of photo-electric cells this control is sensitive to the slightest change in steam pressure before the rise or fall is discernible to a fireman and automatic adjustments are made immediately to the rate of fuel supply and the draught. This constant form of correction, which could not be effected by manual control, has given excellent results both as to boiler efficiency and in meeting demands for steam. The apparatus has been designed and produced in the Manchester area.

The choice of a mechanical stoker requires considerable care to ensure that the design is suitable for the grade of coal available. An industrialist may feel that a particular stoker will fulfil the combustion demands of his plant, especially if he has seen a particular stoker in operation at a similar industrial establishment. It is not always possible to convince him of the importance of the fuel factor. In one case at least, serious difficulties have arisen after the installation of mechanical stokers because the appropriate type of fuel could not regularly be supplied.

In addition to effecting smoke reduction, the financial saving which may result from the installation of mechanical firing is exemplified in the following two cases. In one case mechanical stokers were installed at a cost of £834, resulting in a saving of 14 tons of coal per week, costing £49, together with a labour saving of £6 15s. weekly, making a total saving of £55 15s. per week, against the initial capital outlay of £834.

Another firm installed an additional " Lancashire " boiler with a mechanical stoker costing, with insulation and instrumentation, approximately £7,300. Although steam output has been increased, the coal consumption, in proportion to the previous output, has been reduced by nearly 20 per cent., giving a saving of over £50 per week. This firm did not readily accept suggestions made by the inspectors as to the advantages of mechanical stoking, but in the light of the results achieved propose to install mechanical stokers and recording instruments to other boilers so as to effect economies in fuel consumption and minimise the risk of smoke production.

Emissions of grit and ash from industrial chimneys continue to increase. Sometimes this is due to the high proportion of " fines " in the fuel ; in other cases it is due to the high rates of combustion. In one case it was caused by excessive draught in the furnace, the firemen being under the mistaken impression that they were obtaining more steam in this way.

In reducing or eliminating such emissions technical difficulties may arise in ensuring that no undue economic loss is entailed. In addition the time lag that arises in obtaining the necessary materials often causes a delay in carrying out remedial measures. An example may be quoted of a metallurgical works where coke-fired smokeless forge furnaces had been installed. The process required a high pressure of forced draught, and the fluctuations in the coke grading and the high flue gas velocity caused a grit "carry over" into the chimneys. The high temperatures of the outlet gases preclude the use of a normal type of arrester acting on the centrifugal system, and experiments are being carried out so that a satisfactory solution can be found at an economic cost.

In another case a substance resembling coal dust was removed from a stopped main drain. Under microscopic examination it was found that although it contained a high percentage of unburnt coal similar to stocks stored nearby, there was a significant proportion of typical spherical particles indicative of an origin from fine coal burnt in the partly reducing atmosphere above a high temperature fuel bed. This information, together with an estimate of the rate of fall of the particles, enabled the source of the emission to be located and remedial action taken. The undertaking concerned was unaware of any grit discharge, especially as the emission was sporadic, and coming from a chimney which was also used as an outlet for exhaust steam, with no apparent smoke discharge.

With a view to increasing the efficiency of its plant, and in order to reduce atmospheric pollution, the Area Board of a nationalised undertaking has arranged for special classes for boiler-house firemen and chargehands in the Manchester district; at the request of the management, the Senior Smoke Inspector collaborated in this educational work. The classes are held in the day-time during normal working hours, the men receiving their usual pay whilst attending. The course is arranged in series so that normal work is not impeded, and the results have been so successful that similar classes are to be inaugurated in other areas.

During the year the Smoke Inspectors made 1,332 visits to industrial plant. These visits were mainly of an advisory nature so as to prevent the development of smoke nuisances, and were generally welcomed by the staffs concerned. Advantage is taken during these visits to point out methods of fuel economy and smoke reduction, advise on firemen's classes, and to draw the attention of managements, in appropriate cases, to the advantages of the fire door designed by the Fuel Research Station.

In this connection the Department of Scientific and Industrial Research recently requested the Health Department to collaborate in an educational film dealing with their research work on this type of furnace door, and its practical application to smoke abatement work of a local authority. Several scenes, depicting the administrative and advisory activities of the department, were later filmed in the Town Hall offices and in industrial establishments in the City.

In the course of their duties the Smoke Inspectors made 347 timed observations of chimneys in connection with industrial plant. In 31 cases the emissions were considered to constitute a nuisance and the relevant facts were reported to the Committee. In 17 instances, where mitigating evidence was submitted, the Committee instructed that cautionary letters be sent to the offenders. Statutory notices were served in 12 cases, and two occurrences were considered to justify legal proceedings in which penalties amounting to £17 were imposed.

Below is a summary of smoke observations and details of action taken. It will be noted that bad firing continues to be a cause of undue smoke emission.

| | |
|--|-------|
| Timed observations taken | 347 |
| Black smoke, two minutes and over in half-hour periods | 30 |
| Smoke other than black and causing nuisance | 1 |
| Black smoke under two minutes | 189 |
| Smoke other than black not in such a quantity as to be a nuisance | 4 |
| Exempted chimney revealing black smoke under two minutes | 1 |
| Total amount of black smoke observed in minutes | 416 |
| Average amount of black smoke observed (in minutes) per observation revealing black smoke | 1.2 |
| Complaints received from all sources | 48 |
| Visits to works <i>re</i> smoke abatement | 1,332 |
| Premises where inspectors recommended plant to be altered, improved or repaired | 92 |
| Premises where plant was found to have been altered, etc., as a result of inspector's recommendation | 89 |
| Cases reported to Committee | 31 |
| Cases cautioned or excused | 17 |
| Statutory notices served—black smoke | 11 |
| Statutory notices served—other than black | 1 |
| Prosecutions for smoke nuisances and penalties imposed | 2 |
| Amount of penalties | £17 |
| Statutory notices expiring without further action | 7 |
| Approximate number of industrial chimneys | 1,421 |

Cases reported to Committee—Causes of Emissions :

| | |
|--|----|
| Bad firing | 9 |
| Unsuitable fuel | 10 |
| Bad firing and unsuitable fuel | 4 |
| Insufficient boiler plant | 3 |
| Structural defects in plant | 4 |
| Other cause.. .. . | 1 |

Manchester Corporation Act, 1946

(Prohibition of Smoke Emission in Certain Areas.)

Following the advertisement during the year of the date of operation (1st May, 1952) of Section 35 of the above Act whereby it will be an offence to emit smoke from any premises in the central area of the City, many requests for advice and information have been received from owners and occupiers of the buildings affected.

The enquiries have been concerned mainly with the means whereby open grates, of which there are over 2,200 in the area, may still be used for burning solid fuel, and it is evident that despite the inconvenience attending this method of space heating, many occupiers prefer it as being a means of meeting the new requirement with a minimum of alteration to their existing appliances. This is no doubt due in many instances to owners' intimations to tenants, many of whom have relatively short-term leases, that occupiers of buildings must themselves take the necessary steps to obviate smoke emission after the operative date. In many cases occupiers have arranged to burn low-temperature carbonised fuel with gas ignition to avoid smoke production when lighting up.

A difficult problem arose in connection with the steam-raising plant of a large commercial building in the central area. In this case the load on the boilers had recently been increased and there was insufficient space for housing new boiler plant. The owners decided to install modern high efficiency mechanical stokers capable of dealing with wide variations in the grade of fuel, coal being essential to meet the main steam load. Coke is used when lighting up the fires and for banking up purposes. Induced draught has been provided and a photo-electric cell apparatus is to be installed to give audible warning of increase in density of flue gases and risk of smoke emission.

Although a few occupiers have commented that the creation of a smokeless area should have been deferred still further until the economic and fuel position has improved, a noteworthy spirit of good citizenship in this matter has been revealed in the various interviews with occupiers.

In addition to the numerous enquiries from persons immediately affected, enquiries have been made by owners of premises in close proximity to the prescribed central area ; these enquiries related chiefly to long-term planning for industrial and other boiler plant for steam raising, space heating, etc., and are based on the knowledge that Section 35 of the Act contains provisions relating to extension of the powers to other areas in the City.

Manchester Corporation Acts, 1946 and 1950

(Prevention of Smoke from Newly Installed Furnaces.)

The relevant sections of these Acts require that all furnaces that are newly installed, must be smokeless in operation as far as this is practicable. Dwelling-houses and certain other types of premises are exempted.

The object of these requirements is to ensure that when new plant is being installed it shall incorporate the best practicable means for the elimination of smoke emission.

The Acts do not make it compulsory to forward information to the Corporation regarding new fuel burning installations except when formal approval of the Corporation is requested, but in most cases full information is given informally regarding new furnace installation. Particulars of alterations in fuel burning installations are obtained by the Smoke Inspectors in the course of their routine duties, and from building plans forwarded by the City Architect when the plans indicate that fuel-burning equipment may be installed. In such circumstances the owners or their consultants are interviewed and an understanding reached regarding the suitability of the projected installation.

Some difficulty was experienced in one instance where the industrialist contended that the Department's proposals were unsuitable. Subsequently an efficiency test was carried out on the new boiler, and the resulting economies have been so satisfactory that similar equipment is to be installed on the remainder of the plant, although it is outside the scope of the Acts. The details are included in an earlier paragraph.

A prominent firm of coal distributors has arranged a special lecture for their salesmen dealing with the suitability of the newly introduced down-jet furnace which was described in the report of 1950.

Although the standard " Lancashire " boiler, for obvious reasons, has not declined in general popularity, a new trend towards the water tube type has been noted in the larger undertakings where skilled technical supervision is available.

A large new boiler plant recently installed comprises two Babcock and Wilcox water-tube boilers, each rated at 30,000 pounds of steam per hour. The plant has been designed essentially for the combustion of low grade fuel, and will normally burn dry untreated slacks. Balanced draught will allow close control of combustion conditions with minimum emission of smoke. Special regard has been paid to insulation, and the overall thermal efficiency is in the region of 80 per cent, under normal working conditions.

Atmospheric Pollution.

The measurement of atmospheric pollution is carried out by standard methods and instruments, in co-operation with the Department of Scientific and Industrial Research. Heavier particles of pollution fall by their own weight, or are carried by rainfall into a deposit gauge, which resembles a rainfall gauge. A specially prepared surface of lead peroxide measures the activity of sulphur dioxide pollution; fine particles of suspended matter or "smoke" are filtered out on filter paper, and the weight of the matter retained by the filter is estimated by matching the stain with a scale of shades. The filtered air is then passed through a dilute hydrogen peroxide to determine the amount of sulphur dioxide.

There are seven deposit gauges within the City, and the Health Department also maintains a gauge at Knowle House, Handforth, which is about nine miles south of the City centre, and is within the Wilmslow Urban District, Cheshire. The latter gauge has been established for purposes of comparison with those in the municipal area of the City. There are three lead-peroxide stations for determining sulphur pollution, and one combined smoke filter and volumetric sulphur dioxide apparatus. All these instruments are under the control of the Public Analyst, who reports monthly on pollution found.

The monthly averages for deposited atmospheric pollution which follow, show that the average for all gauges, including that at Knowle House, is slightly increased compared with the previous year. The largest percentage increase occurred at Withington. It was found to be due to a sharp rise in pollution during May, when the deposited impurity amounted to 50.14 tons per square mile, which is comparable to that received by the gauge at Philips Park, in an industrial environment. The Public Analyst drew attention to this large increase, and on the matter being investigated it was found that the flues of the industrial type boiler plant of the premises in the grounds of which the gauge is situated, had been cleaned out during that month, and a large quantity of flue dust had been tipped within 200 yards of the gauge. This dust was again disturbed during subsequent removal, when high winds were prevalent, and was carried in the direction of the gauge, causing an increased amount of deposited matter to be collected.

The reduction in measured deposited pollution at Philips Park, which was noted the previous year, continued during 1951, although great variations occurred during several months. In this vicinity a heavy grit pollution from an industrial boiler plant was detected and immediate statutory action was taken to enforce abatement of the nuisance.

It is recognised that monthly records of pollution will vary partly as a result of changes in the degree of pollution emitted, in addition to the effect of atmospheric conditions arising from rainfall, wind velocity and direction.

The following tables give the monthly averages of deposited matter, and sulphur pollution by the lead peroxide method at the various stations in the City and at Knowle House.

**Deposited Atmospheric Pollution (Tons per square mile).
MONTHLY AVERAGES.**

| Station | Rainfall (inches) | | Insoluble Matter | | Soluble Matter | | Total Solids | |
|--------------------|----------------------|------|---------------------|-------|-------------------|-------|--------------|-------|
| | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 |
| Baguley | 3.0 | 2.8 | 4.68 | 5.96 | 5.28 | 5.53 | 9.96 | 11.49 |
| Booth Hall | 3.0 | 3.4 | 9.68 | 7.95 | 6.44 | 6.29 | 16.12 | 14.24 |
| Heaton Park .. | 3.2 | 3.2 | 10.94 | 10.76 | 6.27 | 6.05 | 17.21 | 16.81 |
| Monsall | 3.0 | 3.2 | 15.02 | 13.22 | 8.47 | 8.37 | 23.49 | 21.59 |
| Philips Park | 3.1 | 3.4 | 36.02 | 38.76 | 12.46 | 11.78 | 48.48 | 50.54 |
| Rusholme | 3.2 | 3.2 | 13.91 | 12.21 | 7.90 | 6.72 | 21.81 | 18.93 |
| Withington | 3.0 | 2.8 | 12.76 | 9.61 | 6.23 | 5.43 | 18.99 | 15.04 |
| All Gauges | 3.1 | 3.1 | 14.71 | 14.06 | 7.58 | 7.17 | 22.29 | 21.23 |

Station at Knowle House, Handforth.

| | Rainfall (inches) | | Insoluble Matter | | Soluble Matter | | Total solids | |
|-----------------|----------------------|------|---------------------|------|-------------------|------|--------------|------|
| | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 |
| Knowle House .. | 3.1 | 2.9 | 4.14 | 3.74 | 4.58 | 4.39 | 8.72 | 8.13 |

Sulphur Pollution.

(Measurements by Lead Peroxide Method.)

Weight in milligrammes SO₃ per 100 square centimetres exposed surface per day.

| Monsall | | Rusholme | | Withington | |
|---------|------|----------|------|------------|------|
| 1951 | 1950 | 1951 | 1950 | 1951 | 1950 |
| 4.48 | 5.22 | 2.70 | 3.46 | 1.64 | 2.04 |

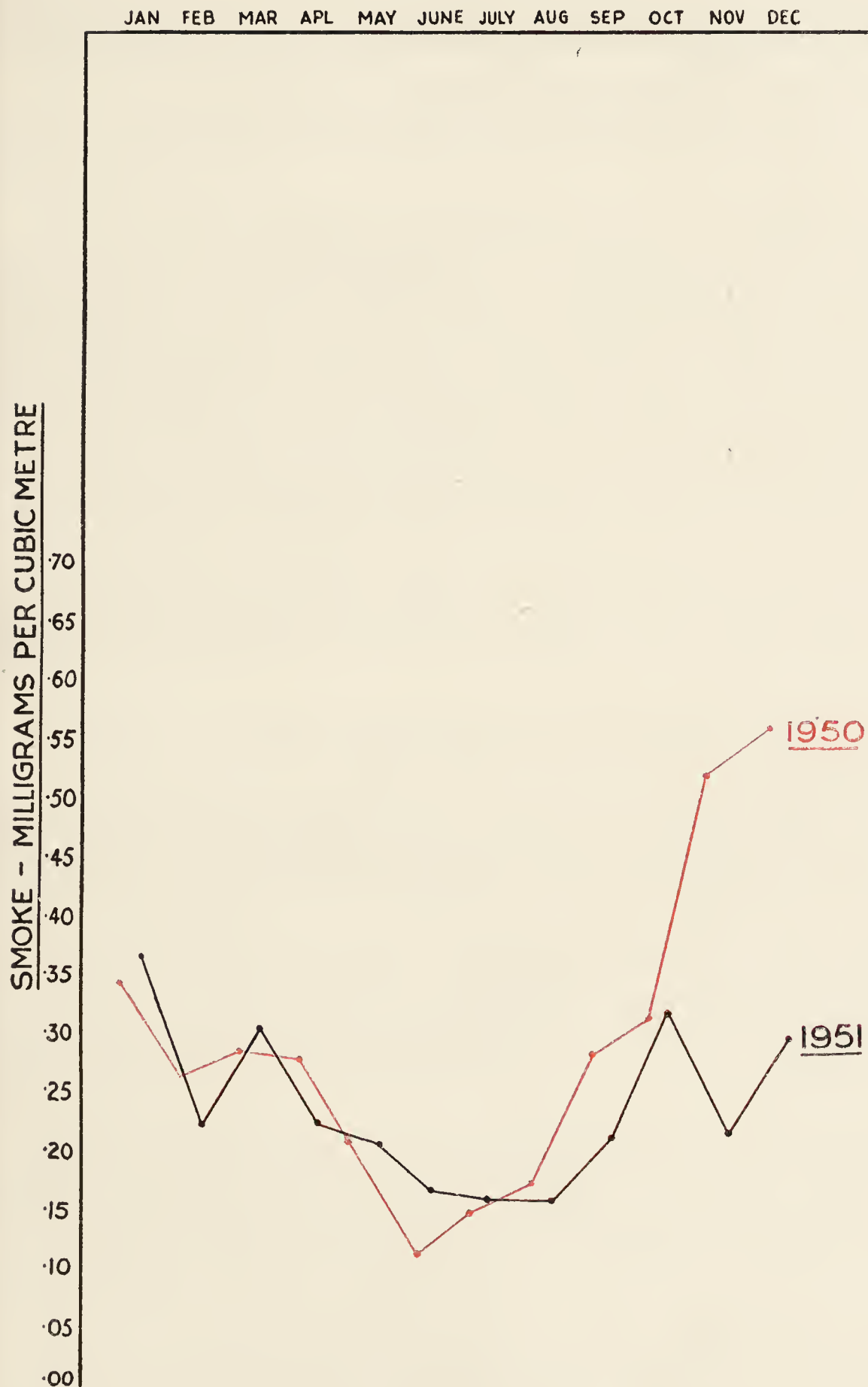
The Corporation maintains a combined smoke filter and volumetric sulphur apparatus at the Public Analyst's laboratory at Rusholme. The purpose of this instrument has been described in a preceding paragraph. The production of sulphur dioxide necessarily arises during the combustion of fuels containing sulphur, this being a constituent of coal ; there will accordingly be some correlation between the amount of sulphur dioxide emitted and the amount of coal burned.

As would be expected in a non-industrial district such as Rusholme, both smoke pollution and sulphur dioxide tend to show a decrease during the summer months. The highest measured average of smoke and sulphur dioxide occurred during January. Much milder weather was experienced during the autumn of 1951, compared with the autumn of the previous year, and, as expected, the pollution shows a decrease, probably due to coal consumption being reduced proportionately.

The accompanying graphs show the measured smoke pollution and sulphur dioxide at Rusholme compared with the previous year,

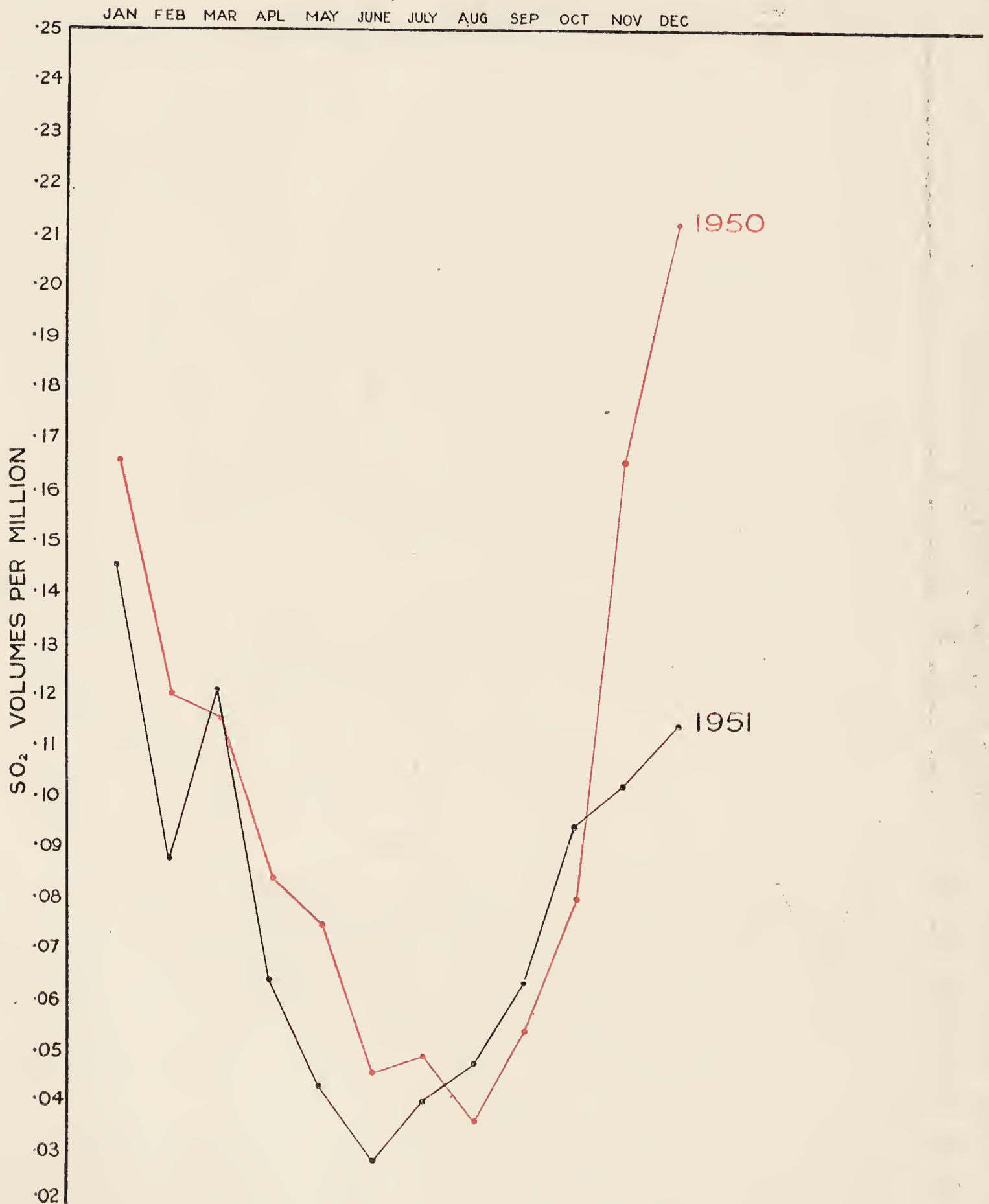
YEARLY CYCLE OF SUSPENDED IMPURITY (SMOKE) AT
RUSHOLME 1951

MONTHLY MEAN CONCENTRATION IN MILLIGRAMS
PER CUBIC METRE



YEARLY CYCLE OF SO_2 BY THE VOLUMETRIC METHOD
1951

MONTHLY MEAN CONCENTRATION AT RUSHOLME
IN VOLUMES OF SO_2 PER MILLION



Offensive Trades.

Offensive trades, as defined in the Public Health Act, are carried on at 57 registered premises in the City, most of them being concerned with the treatment of putrescible animal matter. These businesses were subject to close supervision, particularly during the summer months, to obviate nuisance from unsuitable storage of materials or the discharge of objectionable emanations.

At one of these premises, at which hides, skins and bones are received and stored, insanitary conditions developed in the late summer owing to the congestion of the depot by reason of a large intake of hides, etc., during heavy seasonal slaughtering of animals at the City abattoirs.

Representations to the management resulted in the removal of the accumulations and suitable precautions were taken to prevent a repetition of the occurrence.

Some of the established trades are subject to a limited period of registration, the renewal of which is subject to a satisfactory report on the conduct of the business. In one case of this type consent to the continuance of the business was limited to a three months period as large quantities of stored rags had been allowed to become rain sodden and odorous. These unsatisfactory conditions were remedied and the premises are being kept under close observation. Extensive structural and other improvements embodying suggestions made by the Department are proceeding at a bone processing establishment carried on in conjunction with a large knackers' yard in the City.

Co-operation is maintained with the City Surveyor's Department regarding applications to establish offensive trades which are subject to planning schemes within the provisions of the Town and Country Planning Acts.

Effluvia and Dust Nuisances (Section 92 (d), Public Health Act, 1936).

The incidence of complaints concerning the discharge of dust or effluvia from trade premises has again declined sharply and is surprisingly small in relation to the large number of industrial premises in the City where the processes carried on may give rise to the risk of atmospheric pollution and nuisance.

Several complaints related to burning of trade refuse, including waste rubber, either in the open or in boiler furnaces. In every case an informal intimation to the person responsible resulted in the prompt discontinuance of the practice which had given rise to objection.

The investigation of a complaint about dust given off from a speedway practice cinder track during a short dry spell in the late summer disclosed that racing motor cyclists produced a cloud of ash dust by their skidding technique; the conditions were not deemed to constitute a nuisance under the provisions of the Act.

A serious nuisance arising from pungent fumes was traced to a discharge from a low chimney at a metallurgical works. It was found that the chimney was connected to a gas-fired furnace in which molten lead was retained at a high temperature for the purpose of heating iron wire prior to further processing. Owing to the high temperature and an excess of oxygen, lead oxide was formed and was being discharged into the atmosphere via the chimney. The process mentioned was of an experimental nature and has been discontinued.

Reference was made in last year's report to nuisance caused by the emission of fine clay dust from a rotary drying furnace and to the measures being taken by the management to secure a remedy. Several experimental schemes proved only partially successful and the cost of installing and running an electrostatic precipitation appliance precluded the adoption of this means of preventing dust discharge. The rotary drying process has accordingly been discontinued and new machinery, capable of processing wet clay, has been installed.

Factories.

1. Inspections :—

| Premises | Number on register | Inspections | Number of written notices | Occupiers prosecuted |
|--|--------------------|-------------|---------------------------|----------------------|
| (i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by Local Authorities | 1,284 | 182 | — | — |
| (ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority | 5,785 | 3,122 | 34 | — |
| (iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers' premises) .. | 21 | 39 | — | — |
| Total | *7,090 | 3,343 | 34 | — |

* Register undergoing revision.

2. Cases in which defects were found :—

| Particulars | Defects | | | | Number of cases in which prosecutions were instituted |
|--|---------|----------|----------------------------|-------------------|---|
| | Found | Remedied | Referred to H.M. Inspector | By H.M. Inspector | |
| Want of cleanliness (Section 1) | 5 | 4 | — | 5 | — |
| Overcrowding (Section 2) | — | — | — | — | — |
| Unreasonable temperature (Section 3) | 1 | 1 | — | — | — |
| Inadequate ventilation (Section 4) .. | — | — | — | — | — |
| Ineffective drainage of floors (Section 6) | — | — | — | — | — |
| Sanitary conveniences (Section 7)— | | | | | |
| (a) Insufficient | 12 | 3 | — | 7 | — |
| (b) Unsuitable or defective | 423 | 301† | — | 237 | — |
| (c) Not separate for sexes | 16 | 9§ | — | 10 | — |
| Other offences against the Act, (not including offences relating to Outwork) | 22 | 3 | 18 | 2 | — |
| Totals | 479 | 321 | 18 | 261 | — |

† Includes 84 from previous year.

§ Includes 3 from previous year.

Factory Outworkers.

The employment of outworkers in specified classes of work is supervised by women sanitary inspectors operating under the relevant provisions in the Factories Act and the Public Health Act. These provisions relate to the employment of persons in unwholesome premises and to the prevention of the spread of infectious disease by articles made by factory outworkers.

The number of homeworkers employed in the City decreased slightly during the year to a total of 2,084. A reduction of nearly 200 outworkers in the number engaged in making wearing apparel was ascribed to trade recession ; this reduction was offset somewhat by an increase in the number of workers making umbrellas and soft furnishings.

Manchester factory proprietors also employ 842 outworkers residing in districts outside the City boundaries ; notifications of such employment were circulated to the various local authorities concerned. Information was furnished by other authorities regarding 128 outworkers in Manchester who were employed by firms outside the City area.

Most of the 2,084 outworkers in Manchester are engaged in the clothing trade ; the remainder are employed in making articles of household linen, soft furnishings, toys and umbrellas.

The inspectors have noted a substantial increase in the number of outworkers making plastic handbags, holdalls and travelling cases ; these classes of work are not included in the scheduled trades and are not subject to supervision.

The inspections carried out during the year showed that a good standard of cleanliness was maintained on the whole ; the need for cautionary action arose only in 10 cases where unwholesome conditions were found. The occurrence of infectious disease at 4 premises necessitated the suspension of outwork until the risk of infection had been eliminated.

In the course of routine visits to factories it was found that 27 factory occupiers had omitted to keep a list of outworkers employed. With 2 exceptions the firms concerned were unaccustomed to the employment of outworkers. In every case the necessary list was provided after informal notice had been given regarding the statutory requirements in this respect.

Shops and Employment of Young Persons Acts.

With the exception of provisions relating to compulsory closing times in the evening and to Sunday closing, which are administered by the Chief Constable, the requirements of the Shops Act, 1950, are dealt with by the district sanitary inspectors who visited over 6,300 shops during the year.

This supervision is concerned principally with the provision of suitable and sufficient ventilation, heating, lighting, sanitary accommodation including washing facilities, and the facilities for taking meals by shop assistants.

In 11 cases it was found that these requirements had not been fulfilled, but the various deficiencies were rectified after informal representations had been made to the proprietors.

In 24 other cases shopkeepers had omitted to exhibit prescribed forms relating to assistants' weekly half holidays, records of the employment of young persons and the provisions as to seats for female attendants.

No complaints have been received in these respects and in the cases mentioned it was evident that the omissions, which were subsequently remedied, were due to inadvertence.

In the course of their visits to catering establishments it became necessary for the inspectors to correct several employers regarding misapprehensions of the effect of Wages Regulation Orders, administered by the Ministry of Labour, in relation to Shops Act requirements, administered by the Health Department.

Provision is made in the Wages Orders for overtime rates of pay where the employment is outside normal hours or where it takes place on Sundays. Some employers were under the mistaken impression that this arrangement superseded the provisions in the Shops Act regarding the granting of compensatory time for Sunday employment of shop assistants.

Concerning the exemption from Sunday closing which is available to persons observing the Jewish Sabbath, 287 shops are registered under Section 53 of the Shops Act, 1950, including 4 new registrations where the occupiers of shops had made the requisite statutory declaration during the year.

Applications were received from the promoters of 5 exhibitions for exemption from half-day closing. The requests were acceded to by the Health Committee on certification that the retail trade at the exhibitions was subsidiary or ancillary to the main purpose of the exhibitions.

In order that newly constructed shop premises shall conform with the requirements of the Shops Act as to the provision of sanitary accommodation, washing facilities, etc., the City Architect forwards plans of proposed shops to the Health Department for observations before the plans are approved.

Sanitary Accommodation.

Mainly as a result of informal representations following inspections under the Factories Act, Shops Act or the Public Health Act, additional or improved sanitary accommodation was provided for employees at 59 premises. Plans and details of the alterations were submitted to the Department to ensure that necessary constructional and other standards were observed.

In some cases large ranges of water-closets and urinals were involved, together with washing facilities placed in separately ventilated ante-chambers to the conveniences. A good standard of workmanship is required before the arrangements are approved and the Water Department is notified in every case to ensure that the requirements of that Department are fulfilled.

Several requests were received, particularly regarding licensed premises, for supporting evidence to enable owners to obtain licences from the Ministry of Works to install additional or modernised sanitary conveniences, etc.

These cases were closely investigated, involving check visits at peak periods of usage; it was found in some instances that it was not possible to certify the need for the installations under statutory requirements and the projects were deferred accordingly, in view of the need at the present time to conserve labour and materials for more urgent purposes.

Pail Closets and Privies.

There are now only 386 premises in the City at which the sanitary arrangements consist of pail closets or privies, most of these being situated in the Wythenshawe area. The majority of the premises have no sewer facilities within a reasonable distance and the remainder have a relatively short residual life owing to their general condition or by reason of their situation in potential clearance areas.

There are, in addition, temporary pail closets provided for building operatives engaged in the extensive new housing development in the Wythenshawe area. These temporary structures are subject to approval and subsequent supervision by the Department under Factories Act requirements. The Cleansing Department arranges for regular emptying of the pails.

Tipping of Refuse.

The disposal of refuse other than that collected by the Cleansing Department is carried out at 40 private "tips" in various parts of the City.

In general, the sites are not adjacent to dwelling-houses and the material tipped consists of trade waste, builders' debris and other refuse of an inorganic nature.

The sites are visited systematically by the district sanitary inspectors to obviate the occurrence of nuisance which may develop from the unauthorised tipping of offensive or combustible rubbish. This is particularly liable to arise at those sites where the lessees do not maintain regular supervision. Four complaints were received concerning objectionable conditions at private tips; two of these were related to smoke and fumes given off from burning waste solvent from a chemical works and to burning cartons and paper which had been set alight by trespassers. In these cases and in two other cases in which objectionable matter had been deposited, the conditions were rectified, in one instance as a result of the service of a nuisance abatement notice.

Reference was made in last year's report to a large disused colliery spoilbank in North Manchester which was on fire and was being dealt with by water-spraying arrangements installed on the tip by the National Coal Board. Owing to the deep-seated and extensive nature of combustion it was not possible to extinguish the fire completely, but the water sprays proved effective in limiting the area of combustion and in the prevention of the discharge of sulphurous fumes in such volume as to be a nuisance to residents in the area.

Approximately 75 per cent. of the household refuse collected in the City is disposed of by tipping, which is effected at three outlying sites by means of the controlled system; by this method the refuse is consolidated in layers and covered with earth or other suitable material as the work proceeds. Precautions are taken by screening and when necessary by water spraying to prevent dirty paper or dust being blown away from the tip faces. The Cleansing Department now deals with more than 180,000 tons of refuse annually by this means and the work was carried out without giving rise to complaint. The filling in of one of the sites, 16 acres of low-lying land adjoining the River Mersey, was completed during the year and similar tipping has commenced on another site in the vicinity. These operations will make the sites available for recreative purposes and are also designed to strengthen the raised embankment of the river.

Controlled tipping is also carried on at two sites in North Manchester; these sites are irregular in contour, and when tipping is completed the surfaces are to be levelled and grass seeded to provide additional space for recreation in these districts.

Close co-operation is maintained between the Health and Cleansing Departments, to obviate the risk of objectionable conditions developing in the course of the tipping of crude refuse; insecticidal compounds in spray form are employed successfully to repress flies, crickets and beetles.

The prevention of rat infestation is referred to in the section of the report dealing with rodent control.

Rag Flock and Other Filling Materials Act, 1951.

Reference has been made in previous reports to representations made by the Health Committee regarding the inadequacy of the Rag Flock Acts of 1911 and 1928 and the Regulations of 1912 to secure proper cleanliness of rag flock used in the manufacture of upholstered articles of furniture and bedding.

These statutes were repealed during the year and were replaced by the Rag Flock and Other Filling Materials Act and Regulations, 1951, which came into operation on the 1st November, 1951, and considerably extended the measure of control both as to the types of articles manufactured and the kind of fillings used.

The main purpose of the Act and Regulations is to ensure the cleanliness of fillings used in upholstery processes and the stuffing or lining of bedding, toys, baby carriages and of such other articles as may subsequently be prescribed.

Exemptions are provided in the Act for the remaking or reconditioning of any article or any upholstering in connection with the building or making or fitting out of railway carriages, road vehicles, ships or aircraft or upholstering of such other kinds as may be prescribed.

In addition to rag flock, which had previously been the only type of filling material regulated, 11 other types of fillings are subject to appropriate cleanliness standards prescribed in the Regulations.

The requirement of registration of premises in which these filling materials are used in the upholstery and other activities above mentioned will facilitate the inspection of such premises for the purposes of sampling procedure and the perusal of records of consignments of filling materials, the keeping of such records being obligatory under the Act.

Other important provisions in the Act include the licensing of premises in which rag flock is manufactured or stored for subsequent use in registered premises, power of entry and the detention of filling materials or articles in respect of which an authorised officer has grounds for believing that an offence has been committed under the Act.

The power of detention of materials or articles is related to other provisions in the Act, whereby in the event of a conviction in respect of such materials or articles the court may in addition to imposing penalties, order that the materials or articles shall be forfeited. Experience of the application of the Act and Regulations has necessarily been limited, but 97 premises have been registered for the use of the prescribed materials and 6 premises have been licensed for the storage of rag flock. Many visits of an advisory nature have been made and the samples taken since the operation of the new provisions on the 1st November have been found, on examination by a prescribed analyst, to comply with the appropriate standards of cleanliness.

Of the 50 samples taken earlier in the year under the previous Acts, 2 failed to comply with the cleanliness standard contained in the Regulations of 1912. In these cases the circumstances were not deemed to warrant legal proceedings and the firms concerned were cautioned.

Pharmacy and Poisons Act, 1933.

The provisions of the Act and the Poisons Rules as to the sale by retail of the poisons specified in Part II of the Poisons List, are administered by the Department.

The poisons concerned are sold usually as constituents of insecticides, rodent exterminants, hair dyes and household ammonia, mainly by grocers and hardware dealers. Other retailers of the poisons include hairdressers, herbalists, seedsmen, florists and agricultural suppliers.

The number of "listed" sellers was reduced by 45 to 1,250 at the end of 1951; a total of £338 19s. 6d. was received during the year in payment of fees for renewals, etc.

The district sanitary inspectors are concerned with the investigation of applications for listing, inspection of records, labelling and storage requirements; appropriate advice was given in those cases where this proved necessary to secure full compliance with the requirements of the Act and Rules.

Noise Nuisance.

The number of complaints about noise nuisance has increased and is perhaps a reflection of nervous tension arising from the stress of modern life. Although some of the complaints proved to be of a trivial nature, many were fully justified inasmuch as they related to trade and other noises which occurred late at night or in the early hours of the morning and disturbed the complainants' sleep.

The statutory powers of the Corporation in this connection derive from the Public Health Act, 1936, together with Section 40 of the Manchester Corporation Act, 1946, which includes the following provisions :—

Sub-section (2) :

In any proceedings under the Public Health Act, 1936, in respect of a noise nuisance occasioned in the course of any trade business or occupation it shall be a good defence for the person charged to show that he has used the best practicable means of preventing or mitigating the nuisance having regard to the cost and to other relevant circumstances.

Sub-section (3) :

For the purpose of this section a noise nuisance shall be deemed to exist where any person makes or continues or causes to be made or continued any excessive or unreasonable or unnecessary noise which is injurious or dangerous to health.

It will be noted that statutory action to require the abatement of noise from trade premises, etc., is dependent upon several factors, including neglect to use the best practicable means to prevent or mitigate nuisance and proof that the noise is excessive, unreasonable or unnecessary and is injurious or dangerous to health.

In every case where it was found that undue noise was being produced, the management concerned readily adopted suggestions made by the inspectors for the reduction or elimination of the various noises which had given rise to complaints. In no case did it prove necessary to have recourse to statutory action; this position is evidence alike of the resource of the inspectors and the measure of co-operation they have encountered. In several instances the firms concerned were obviously unaware that they had been interfering unduly with the reasonable needs of nearby residents. In a few cases it was apparent that the complainants had endeavoured unsuccessfully to secure redress by direct approach to the firm concerned and had complained to the Department as a last resource.

In the main, the complaints related to industrial noises emanating from premises situated in districts in which long-established trade or industrial undertakings are carried on in relatively close proximity to dwelling-houses erected in pre Town Planning times. The ultimate remedy in most of these cases lie in the implementation of re-planning schemes, the only immediate action available being that designed to minimise the production of noise, particularly that made in the evening and at night.

A wide range of noises was involved in the cases investigated, including noise produced by machinery—including power-driven sewing machines—steam and other exhaust pipes, ventilating fans, bottle-washing plant, amplified and juke-box “music,” woodworking, loading and unloading operations and a Diesel-operated asphalt mixer employed on urgent repair work. Many of the complaints necessitated visits by the inspectors during the night or at week-end.

An unusual noise complaint related to a burglar alarm with a powerful bell which rang from time to time over varying periods during the night and disturbed the sleep of residents in the neighbourhood. It was not established whether the occurrences were due to burglary attempts or to the ultra-sensitiveness of the apparatus to vibration; after the occupiers of the premises had been cautioned as to need for regular servicing of the appliance, no further complaints were received.

It is noted that complaints about noises produced at fairgrounds have diminished considerably; this is due partly to a reduction in the use of small sites close to dwelling-houses and in part to the efforts made by the Showmen’s Guild to minimise noise made by amplified music or by Diesel engines used for the generation of electricity. Where justifiable complaints of this nature were received, it was found that the fairs were removed after a few days and before the existing powers of the Corporation as to noise nuisance could be put into effect.

Exhumations.

Prior to the demolition of St. Matthew’s Church, Liverpool Road, it became necessary to arrange for the supervision of the removal of the remains of 38 bodies buried in the crypt of the church, for reinterment in consecrated ground at the Southern Cemetery.

Owing to various causes the operations were protracted and imposed a heavy strain on the inspectors concerned. These officers spared no effort to ensure that the removal of the remains was effected with due care and decency and with proper regard to hygienic requirements. The work was carried out during early morning and late evening hours and the removal of the bodies and their reinterment at Southern Cemetery was achieved without attracting the attention of the public, notwithstanding the congested nature of the area in which St. Matthew’s Church is located.

Additional precautions to avoid publicity were deemed necessary, having regard to the knowledge that many of the remains were encased in leaden caskets and that thefts of lead from churches are nowadays by no means uncommon. The untiring efforts of the inspectors ensured that no desecration took place.

The original interments took place between 1826 and 1899 and it is of local historical interest to refer to an inscription in the church concerning one of the bodies, that of James Tudor, a former captain of the 38th Regiment of Infantry, who died suddenly on the 4th October, 1842, in consequence of the anxiety and fatigue undergone in the fulfilment of his public duties during the period of the disturbances at Manchester in that year.

The church was consecrated in 1825 and accommodated 2,000 worshippers; it was known as the Garrison Church in consequence of the attendance there of military personnel from the Manchester Garrison. The demolition of the church constitutes the loss to the City of a building greatly admired for its architectural beauty, particularly the graceful 132-foot-high spire,

District inspectors supervised two other exhumations which took place at cemeteries within the City during the year. One of the exhumed bodies was removed for reinterment in the State of Israel. The other exhumation was concerned with reinterment in another part of the same cemetery.

The operations were conducted with proper regard for public health and with due care and decency in accordance with the appropriate licences issued by the Home Office.

Hairdressers and Barbers' Premises.

Under the provisions of the Manchester Corporation Act, 1946, more than 600 hairdressers and barbers and their trade premises have been registered in the department.

Byelaws made under the same Act for the purpose of securing the cleanliness of hairdressers and barbers' premises, instruments, equipment, etc., and the cleanliness of employees, came into effect on the 1st November, 1951.

It had been hoped to obtain powers to require the compulsory sterilisation of certain apparatus before use, but this could not be achieved. Many hairdressers in the City do, however, sterilise their equipment and representatives of hairdressers' organisations have expressed the desirability of compulsory powers in this respect.

Inspections made under the byelaw provisions indicate that the trade is anxious to improve standards, particularly those of less progressive members, and it is noted that a genuine attempt is being made to meet the new requirements.

Difficulties which have arisen in practice have been brought forward by trade representatives and have been discussed frankly with the department to the mutual advantage of the trade and the Corporation in the public interest.

Public Sanitary Conveniences.

The public conveniences service was reviewed during the year and measures were taken to secure greater efficiency in the operational procedure at a substantial saving in cost. Motor transport has been introduced to provide greater mobility in the work of cleansing public conveniences and when mechanisation is fully operative an improved standard of hygiene and cleanliness will be attained.

A further innovation has been the arrangement for facilities to be available throughout the night at conveniences in busy parts of the City and this principle has been extended to many of the conveniences in the suburbs. The arrangement was introduced towards the end of the year and, so far, no difficulties have been encountered.

At some conveniences in the suburbs the facilities for wash and brush up and storage of parcels have been withdrawn because the extent of patronage was insufficient to justify retention.

New conveniences have been opened during the year at Queen's Park, Harpurhey, to replace a convenience in the vicinity which suffered war damage and was demolished. Conveniences for both sexes were opened also at Brooks's Bar, Stretford Corporation sharing the construction and maintenance costs.

A convenience for men at Ardwick Green was taken over from the Parks Department, reconstructed and adapted for use by the general public. The building of new conveniences at Sharston and Cannon Street was well advanced at the end of the year and it is expected that they will be available to the public early in 1952.

It has not been possible to commence building the conveniences projected at Parr's Wood, East Didsbury, and Hollyedge Road, Benchill.

Three public urinals which were no longer required have been demolished and others of obsolete pattern have been modernised.

At the end of the year there were 152 conveniences under the control of the Committee, with accommodation as shown below :—

Males—

| | |
|--|-----------------|
| With urinal, water-closet, washing, and parcel accommodation | 8 |
| With urinal, water-closet, and washing accommodation | 10 |
| With urinal and water-closet accommodation | 27 |
| With urinal accommodation only | 69 |
| | <hr/> 114 <hr/> |

Females—

| | |
|--|-----------------|
| With water-closet, washing, and parcel accommodation | 10 |
| With water-closet and washing accommodation | 17 |
| With water-closet accommodation only | 11 |
| | <hr/> 38 <hr/> |
| Total | <hr/> 152 <hr/> |

A free water-closet is available at all public conveniences.

Wilful damage, theft of fittings and toilet requisites and wanton misuse at unattended conveniences still give rise to concern. In consequence the cost of maintenance is increased and all too frequently the standard of service to the public is reduced. Although wanton damage is almost a daily occurrence, it has not been possible, except in one instance, to trace the culprits. In this case two men were prosecuted for damaging a public convenience and were fined £2 each in addition to the payment of £5 damages.

The Health Committee gave consideration to the question of wilful damage and misuse of the public conveniences and instructed that notices be posted in every convenience urging the public to discourage such action.

The notice is reproduced below :—

CITY OF MANCHESTER.

This convenience, with many others, is provided for your use by the citizens of Manchester through the Health Department of the City Council.

To maintain this apparently simple service requires much hard work by the staff of the Department and quite a large amount of money from the rates. Every year this work is made more difficult and expensive by the misuse, acts of theft and malicious damage on the part of irresponsible people.

Members of the public are urged to co-operate with the City Council by discouraging any action of this kind.

C. METCALFE BROWN,
Medical Officer of Health.

Health Department,
Town Hall, Manchester, 2.

Number of Inspections and Visits.

| | | |
|--|--------|------------------------|
| Primary inspections of dwelling-houses under the Public Health Act, 1936 | 17,307 | Dwelling-houses 68,729 |
| Subsequent inspections of dwelling-houses under the Public Health Act, 1936.. .. . | 44,549 | |
| Primary inspections of infected houses | 1,683 | |
| Subsequent inspections of infected houses | 130 | |
| Visits <i>re</i> contacts—infectious disease | 264 | |
| Visits <i>re</i> infirm persons | 41 | |
| Houses-let-in-lodgings | 852 | |
| Common lodging-houses | 234 | |
| Tents, vans, and sheds | 1,618 | |
| Homes of outworkers | 1,326 | |
| Canal boats | 725 | 67,321 |
| Bakehouses | 1,411 | |
| Food preparation premises | 2,142 | |
| Restaurant, etc., kitchens | 1,453 | |
| Factory canteens | 203 | |
| Hawkers of food and storage premises | 150 | |
| Sale of food on open sites | 1,951 | |
| Shops <i>re</i> sale of food | 7,824 | |
| Markets <i>re</i> sale of food | 78 | |
| Hotels, beerhouses | 449 | |
| Knackers yards | 40 | |
| Visits by sampling officers to obtain samples of water for chemical and bacteriological examination .. | 45 | |
| Visits by sampling officers to obtain samples of food and drugs | 3,009 | |
| Visits to registered premises of wholesale margarine dealers | 102 | |
| Visits by sampling officers <i>re</i> food preparation research | 504 | |
| Offensive trades | 230 | |
| Observations <i>re</i> effluvia nuisances | 462 | |
| Works boiler plant <i>re</i> smoke abatement | 1,332 | |
| Refuse tips—Corporation | 28 | |
| Refuse tips—private | 135 | |
| Stables | 145 | |
| Piggeries | 110 | |
| Sanitary accommodation at schools | 305 | |
| Sanitary accommodation at parks | 230 | |
| Public sanitary conveniences | 364 | |
| Cesspools | 7 | |
| Land (refuse deposits, etc) | 871 | |
| Watercourses | 55 | |
| Streets, passages, roadways and footpaths | 1,562 | |
| Exhumations | 65 | |
| Factories | 3,304 | |
| Shops <i>re</i> Shops Acts | 6,316 | |
| Hairdressers and Barbers shops <i>re</i> Manchester Corporation Act, 1946.. .. . | 258 | |
| Cinemas, theatres, dance and billiard halls | 103 | |
| Churches | 65 | |
| Premises in connection with Rag Flock Act | 514 | |
| Other business premises | 1,752 | |
| Drain tests.. .. . | 449 | |
| Pharmacy and poisons Act, 1933 | 1,218 | |
| Premises for the purpose of examination of drains | 330 | |
| Supervision of default works (Drainage etc. branch).. .. . | 6,681 | |
| Railway stations | 79 | |
| Sale of verminous articles | 37 | |
| Rag and Bone Dealers' Barrows | 18 | |
| Noise nuisance | 215 | |
| Miscellaneous visits | 20,720 | |

WORK OF SPECIAL INSPECTORS.

The following indicates the work done for the Medical Officer of Health by the two Special Inspectors.

Number of visits *re*:—

| | |
|--|-------|
| Infectious diseases | 134 |
| Food poisoning | } 349 |
| Food contamination | |
| Water supply | 7 |
| Vermin—Infested premises.. .. . | 23 |
| Institutions | 8 |
| Tips.. .. . | 3 |
| Nursing homes | 72 |
| Nursing agencies | 16 |
| Nuisances | 7 |
| Swimming baths | 36 |
| Export of washed rags and other materials | 24 |
| Export of foodstuffs | 3 |
| Massage or special treatment establishments.. .. . | 118 |
| Steam disinfectors | 4 |
| Tests of water applied at swimming baths | 72 |
| Miscellaneous | 65 |

Water Supply.

Apart from the usual sampling of drinking water in the City area, tests were carried out on the request of the Education Department at a school holiday camp in Cheshire where Manchester children attend. The water which was from a hillside spring was, after examination, found to be unsatisfactory and the camp authorities were informed accordingly and advised to boil such water when intended for human consumption.

The Corporation Waterworks continued with their sampling and examination of the water from the gathering grounds and streams in the vicinity of the Woodhead Tunnel, and the results were at all times highly satisfactory.

Swimming Baths.

The standard of purity of the water in the swimming baths continued to be high.

There were no noteworthy changes made other than the continued provision at the Corporation baths of mechanical aids for the uniform dosage of the swimming bath water with the necessary chemical reagents.

No complaints were received and as the open air baths in the parks again remained closed no embarrassment was occasioned on their account.

Export of Washed Rags, Materials, and Food.

Inspection of materials and foods for export is carried out as a hygienic measure coming within the scope of the Department. It is also done to assist business firms in the City to attain the standard of cleanliness and purity required by regulations made and enforced by countries and importing authorities abroad.

Visits to one firm who deal with washed coloured rags and boiled mutton cloths, necessitated the inspection of 200 bales weighing $47\frac{1}{2}$ tons for export to Africa and Aden. The certification of the Medical Officer of Health to satisfy the importing countries must embody that such materials have been washed and sterilised by boiling in caustic soda solution, dried, and presspacked under the supervision of the Department. This firm has in consequence co-operated with the Department to maintain a high standard of treatment and, during the past year, has installed more modern equipment, including electric hydrolisers to effect speedier and more efficient methods of dealing with the materials.

Packages and cases containing baking soda and beef suet also received attention where the firms were exporting to Egypt and Venezuela. In these instances the importing authorities required that the foodstuffs conformed with the food laws of this country, that they were as sold in this country and were not manufactured solely for export.

Establishments for Massage or Special Treatment.

Three new applications were made for licences to carry on establishments for massage or special treatment under Part IX of the Manchester Corporation Act, 1924. One of the two licences granted was for the continuance of an existing business. The refusal to grant a licence in the third case was because the applicant did not possess such technical qualifications as were reasonably necessary.

In addition to the two new licences issued 103 licences were renewed for another annual period.

It was with interest and some degree of satisfaction that the guiding principles used by the Corporation when assessing qualifications on consideration of applications for licences, should be similar in major respects to the recommendations of the "Cope" Committees in their reports to Parliament on the employment of medical auxiliaries in the National Health Service.

Isolation of a Cocksackie virus of Dalldorf Group B.

An outbreak of Bornholm disease or epidemic myalgia occurred in Manchester in the early summer. At first the disease was not recognised as such although a medical practitioner in the area was conscious of the epidemic and he informed the Medical Officer of Health. The illness was mainly among children and the symptoms generally were pyrexia, abdominal pain, sore throat, and some vomiting.

Faecal specimens from patients and samples of water obtained from a nearby stream in which many of the children played, when examined for organisms of the typhoid, salmonella or dysentery groups gave negative results.

In view of these results, Dr. M. T. Parker, of the Public Health Laboratory, considered the epidemic might be Bornholm disease and he communicated with Dr. O'H. Tobin, of the Department of Bacteriology, Manchester University, who was engaged on associated research.

Two children from the infected area were later hospitalised and they were kept under special observation by the Medical Superintendent of Monsall Hospital, Dr. D. C. Liddle, and Dr. O'H. Tobin.

The result was that a Cocksackie virus of Dalldorf Group B was isolated from the faeces of one of those affected. Seriological evidence of recent infection with the isolated strain was obtained in the two cases investigated.

Following the approach to the Medical Officer of Health, every assistance was afforded Dr. O'H. Tobin in the necessary field work required in the epidemiology.

The name Cocksackie virus was given to virus isolated by intramuscular inoculation of suckling mice from faeces of patients with clinical poliomyelitis in Cocksackie Village, near New York, U.S.A.

Food Poisoning.

Details of cases of food poisoning and suspected food poisoning are appended in the following schedule. Such details are as forwarded to the Ministry of Health in accordance with the Circular 46/49, dated 24th May, 1949.

More notifications of food poisoning have again been received and investigated by the Department during the year, due in the main to the co-operation of Dr. M. T. Parker, Director of the Public Health Laboratory Service at Monsall Hospital, rather than to notification by general practitioners. The Medical Officer of Health is informed immediately by Dr. Parker when organisms associated with food poisoning are identified, whether from the faeces of hospital patients or other channels, and this liaison helps considerably in endeavouring to ascertain the source by an early investigation.

Although the number of cases investigated increased in 1951, it was gratifying that outbreaks involving groups of persons communally feeding diminished. It appears at first glance that the wider publicity and activity associated with food handling and hygiene is having effect, at least among those engaged in the catering trade.

Owing to the interesting features two of the cases in the schedule are amplified as follows :—

No. 1 Outbreak.

Some 374 persons attended a golden wedding celebration and illness occurred consisting of vomiting and diarrhoea generally with abdominal discomfort and cramp about 18 hours after partaking of a meal. It was ascertained that 34 persons were ill but probably others went undetected.

The known patients had one common dish at the meal, boiled salmon and mayonnaise sauce. Included in the mayonnaise sauce, which was not heated in any way, were the yolks of 15 raw duck eggs.

The same type of *Salmonella typhi-murium* was found in the faeces of those ill and one of the persons responsible for the preparation of the food served but no food scraps or remains of the meal were available as samples for examination. Some duck eggs obtained from the hotel kitchen stores were bacteriologically examined with negative results.

There was no doubt that the meal served was the cause of the outbreak of illness which occurred, but it could not be determined whether the *Salmonella typhi-murium* infection was conveyed from the food supervisor to the food or vice versa or whether the infection of the food was by the use of raw duck egg yolk.

No. 2 Outbreak.

This outbreak of illness occurred at a Girls' High School when 47 pupils, four teachers and two canteen workers complained of nausea, abdominal pain, vomiting and diarrhoea after partaking of a meal in the school dining room. The incubation period was about 10 hours and the illness continued for 3/4 days.

Heat resistant anaerobes were isolated from faeces samples obtained from three of the scholars and teachers and 18 central kitchen staff, from the cold roast mutton of the sample dinner, from debris on the floor of the trolley on which raw and cooked meat was transported in the kitchen and from a raw piece of beef which had been delivered at the central kitchen the morning the outbreak was investigated.

Other samples of raw meat obtained from the butcher supplier on subsequent dates to the occurrence, had negative results.

Summary of Food

Cases where organisms were

| Outbreak caused by | | Cases | | | Illness—Clinical features | | |
|--|---------------------------------|----------|-----------------|--------------------|--|-------------------|---------------|
| Food | Agent | Notified | Ascertained | Average incubation | Main symptoms | Severity | Duration |
| 1. Roast beef? .. | Cl. welchii | 10 | 10 | 12-24 hrs. | Diarrhoea | Mild | 2 d |
| 2. Minced meat? .. | Cl. welchii | 18 | 16 (2 fatal) | 9 hrs. | Diarrhoea, vomiting, pyrexia, and abdominal pain | Generally mild | 4 d |
| 3. Boiled fresh salmon and mayonnaise? | S. typhimurium | 15 | 19 | 18 hrs. | Abdominal pain, diarrhoea, vomiting, nausea, pyrexia, anorexia, muscular cramp | Moderate and mild | 2 d |
| 4. Steamed lamb? .. | Heat resistant anaerobes | Nil | 53 | 10 hrs. | Nausea, abdominal pain, vomiting, and diarrhoea | Mild | 3 d |
| 5. Not known | S. typhimurium | 1 | 1 | Not known | Child 6 months old. Diarrhoea frequently, vomiting occasionally | Mild | 6 m |
| 6. Duck egg? | S. typhimurium | 1 | 3 | 5 hrs. | Vomited, diarrhoea, abdominal pain, malaise, pyrexia | Mild and severe | 8 |
| 7. Not known | S. typhimurium | 1 | 1 fatal | Not known | General debility, head and chest pains, malnutrition. Chronic invalid | Severe | 6 m |
| 8. Not known | S. tennessee | 1 | 1 | Not known | Loose motions | Very mild | |
| 9. Hen egg? | S. typhimurium | 1 | 1 | Not known | Abdominal pain, malaise, nausea, vomiting, and tenesmus | Mild | 7 |
| 10. Not known | S. menston | 1 | 1 | Not known | Pneumonia and whooping cough. Later diarrhoea | Moderate | ho ab |
| 11. Sausage? | S. typhimurium | 1 | 1 | Few hours | German measles, boils, and appendicitis? | Mild | ho aa |
| 12. Not known | S. typhimurium | 1 | 1 | Not known | Nausea, diarrhoea, abdominal pain. Also maternity case. Hospitalised 11 days previously for 11 days with toxemia | Not known | ho a 12 |
| 13. Not known | S. typhimurium | 1 | 1 | 1 day | Diarrhoea and vomiting. Had been hospitalised the month previously for a period of 2 weeks suffering from gastro-enteritis | Mild | ho |
| 14. Not known | S. typhimurium | 1 | 1 | Not known | Pyrexia, anorexia, shivering, abdominal pain, nausea, and diarrhoea | Mild | 2 |
| 15. Russian crab? .. | S. aureus | 3 | Nil | 2 hrs. | Vomiting, diarrhoea, abdominal pain, pyrexia, malaise, and in 1 case syncope | Mild | |
| 16. Hen egg? | S. typhimurium | 1 | 1 | ? | Diarrhoea, abdominal pain .. | Mild | h |
| 17. ? | S. typhimurium and S. dysentery | 1 | 1 | | Vomiting, diarrhoea, pyrexia | Mild | h a |
| 18. Not known | S. typhimurium | 1 | 1 | Not known | Vomiting, diarrhoea | Mild | h a |

soning, 1951.

ociated with illness.

| s | Results of Laboratory investigations | | | Origin and preparation of food suspected | Place at which food causing illness was consumed | Estimated number at risk | Probable origin of infection or contamination of food |
|-----|---|------------------|---------------|--|---|-----------------------------------|--|
| | Food Samples | Food Handlers | Other | | | | |
| ive | — | 1 negative | — | Central kitchen | School | 2,083 | Not known. |
| ve | | | | | | | |
| ve | 1 negative | 2 positive | 3 negative | Kitchen jointly supplies hospital wards and old people's home | Hospital wards | 740 | Not known. |
| ive | | 10 negative | | | | | |
| ive | 12 negative | 1 positive | — | Farms? | Hotel | 374 | Duck eggs used in raw state or food handler. |
| | | 14 negative | | | | | |
| ive | 2 positive | 18 positive | 1 positive | Central kitchen | School | 360 | Contaminated uncooked lamb? |
| ive | 11 negative | 27 negative | 3 negative | | | | |
| ive | — | — | — | Not known | Home | 1 | Child has not made progress since birth. |
| ive | — | — | 2 negative | Farm | Home | 5 | Cross infection in home. |
| ive | — | — | — | Not known | — | 4 | Had been bedfast for 6 months. |
| ive | — | — | — | Not known | — | 5 | No illness. |
| ive | — | — | 1 negative | Farm | Home | 3 | Hen egg. |
| ive | — | — | 5 negative | Not known | Home | 1 | Not known. |
| ive | — | — | 4 negative | Not known | Home | 3 | Not known. |
| ive | — | — | 2 negative | Not known | — | 3 | Not known. |
| ive | — | — | 5 negative | Not known. Child 5 months old | Not known | 7 | — |
| ive | — | — | 6 negative | Not known | Restaurant wedding party? | Not known | Not known. |
| ive | 1 positive | — | — | Not known | Homes of patients | 3 | Packing afloat Russian trawlers |
| | 1 negative | | | | | | |
| ive | — | — | 4 negative | Farm | Home | 5 | Delicate child from birth. |
| ive | — | — | 3 negative | Not known | Not known | 5 | Baby 4 months old. |
| ive | — | — | 2 negative | Not known. | Not known | 3 | Baby 7 months old |

| Outbreak caused by | | Cases | | | Illness—Clinical features | | |
|----------------------|----------------|-----------|-------------|--------------------|--|----------------------------|----------------|
| Food | Agent | Notified | Ascertained | Average incubation | Main symptoms | Severity | Duration |
| 19 Not known | S. typhimurium | 1 | 2 | Not known | Diarrhoea, abdominal pain, and pyrexia | Mild | 4 days |
| 20. Beef? | S. dublin | 1 | 1 | Not known | Inflamed knee | Mild | 7 days |
| 21. Not known | S. oranienberg | 1 | 1 | Not known | Languid, pyrexia, abdominal pain | Mild | hospitalized |
| 22. Hen egg? | S. typhimurium | 1 | 1 | Not known | Abdominal pain, diarrhoea, pyrexia | Mild | hospitalized |
| 23. Not known | S. montevideo | 1 | 4 | Not known | Nausea, vomiting, diarrhoea, abdominal pain, pyrexia | 1 severe (fatal) 3 mild | hospitalized |
| 24. Hen egg? | S. typhimurium | 1 | 1 | Few | Vomited, anorexia | Mild | hospitalized |
| 25. Not known | S. typhimurium | 1 (fatal) | 3 | Not known | Abdominal pain, diarrhoea, anorexia, vomiting | 1 severe 2 mild | hospitalized |
| 26. Not known | S. typhimurium | 1 | 1 | Not known | Slight diarrhoea, headache.. | Mild | hospitalized |
| 27. Not known | S. typhimurium | 1 | 1 | Not known | Abdominal pain, diarrhoea, and vomiting | Mild | hospitalized |
| 28. Not known | S. typhimurium | 1 | 1 | Not known | | Mild | hospitalized |
| 29. Not known | S. typhimurium | 1 | 1 | Not known | | Mild | hospitalized |
| 30. Not known | S. typhimurium | 1 | 1 | Not known | Vomiting, diarrhoea, pyrexia | Mild | hospitalized |
| 31. Pressed veal? .. | S. typhimurium | 1 | 3 | 1-2 days | Vomiting, diarrhoea, pyrexia, and abdominal pain | Mild | 7 days |
| 32. Not known | S. typhimurium | 1 | 1 | Not known | Not known | — | hospitalized |
| 33. Not known | S. typhimurium | 1 | 1 | Not known | Not known | — | hospitalized |
| 34. Not known | S. typhimurium | 1 | 1 | Not known | Not known | — | hospitalized |
| 35. Not known | S. typhimurium | 1 | 3 | Not known | Not known | — | 1 hospitalized |
| 36. Hen egg? | S. typhimurium | 1 | 1 | Not known | Diarrhoea, pyrexia | Mild | hospitalized |
| 37. Not known | S. newington | 1 | 1 | Not known | Diarrhoea and vomiting .. | Mild | Few |
| 38. Not known | S. typhimurium | 1 | 5 | Not known | Diarrhoea and vomiting .. | Mild | hospitalized |
| 39. Not known | S. typhimurium | 1 | 1 | Not known | Diarrhoea and vomiting .. | Mild | hospitalized |
| 40. Not known | S. typhimurium | 1 | 2 | Not known | Diarrhoea and vomiting .. | Mild | hospitalized |
| 41. Not known | S. typhimurium | 1 | 1 | Not known | Diarrhoea and malaise .. | Moderate | hospitalized |
| 42. Not known | S. typhimurium | 1 | 1 | Not known | Not known | — | hospitalized |
| 43. Not known | S. typhimurium | 1 | 1 | Not known | Vomiting, diarrhoea, abdominal pain, convulsions | Moderate | hospitalized |
| 44. Not known | S. typhimurium | 1 | 1 | Not known | Rash, diarrhoea, abdominal pain, and vomiting | Mild | hospitalized |
| 45. Not known | S. typhimurium | 1 | 1 | Not known | None | — | — |

| Results of Laboratory investigations | | | | Origin and preparation of food suspected | Place at which food causing illness was consumed | Estimated number at risk | Probable origin of infection or contamination of food |
|--------------------------------------|--------------|---------------|------------|--|--|--------------------------|--|
| es | Food Samples | Food Handlers | Other | | | | |
| ive | — | — | 2 negative | Not known | Not known | 4 | Children, 1 $\frac{2}{12}$ years and 2 $\frac{1}{2}$ years old. |
| ive | — | — | 3 negative | Not known | Not known | 4 | Admitted to hospital with pre-patellar bursitis. Fluid examined—found S. dublin. |
| ive | — | — | 4 negative | Not known | Not known | 5 | Suspected carrier. |
| ive | — | — | 2 negative | Not known | Home | 3 | — |
| ive | — | — | — | Not known | Not known | ? | Fatal case was aged 78 years. |
| ive | — | — | 5 negative | Not known | Not known | — | Child age 1 $\frac{4}{12}$ years. |
| ive | — | — | — | Not known | Not known | Not known | — |
| ive | — | — | 2 negative | Not known | Not known | Not known | — |
| ive | — | — | 3 negative | Not known | Not known | Not known | Child 5 months old. |
| ive | — | — | — | Not known | Not known | Not known | Possibly cross infected in hospital. |
| ive | — | — | — | Not known | Not known | Not known | Possibly cross infected in hospital. |
| ive | — | — | 2 negative | Not known | Not known | Not known | — |
| ive | — | — | 2 negative | Not known | Home | 5 | — |
| ive | — | — | — | Not known | Not known | — | Probably hospital infection. |
| ive | — | — | — | Not known | Not known | Not known | Probably hospital infection. |
| ive | — | — | 3 negative | Not known | Not known | Not known | Probably hospital infection. |
| ive | — | — | 2 negative | Not known | Not known | Not known | Probably hospital infection. |
| ive | — | — | 5 negative | Not known | Home | 6 | Child 10 months old. |
| ive | — | — | 6 negative | Not known | Home | 7 | On visit from U.S.A. with parents. |
| ive | — | — | — | Not known | Home | 7 | — |
| ive | — | — | 2 negative | Not known | Home | 3 | — |
| ive | — | — | 2 negative | Not known | Home | 4 | — |
| ive | — | — | 2 negative | Not known | Home | 3 | Possibly hen egg. |
| ive | — | — | 4 negative | Not known | Home | 6 | Probably hospital infection. |
| ive | — | — | 4 negative | Not known | Not known | 3 | Not known. |
| ive | — | — | 6 negative | Not known | Not known | 7 | Not known. |
| ive | — | — | 2 negative | — | — | 2 | — |

| Outbreak caused by | | Cases | | | Illness—Clinical features | | |
|---------------------|----------------|----------|-------------|--------------------|---------------------------|-----------|----------|
| Food | Agent | Notified | Ascertained | Average incubation | Main symptoms | Severity | Duration |
| 46. Not known | S. typhimurium | 1 | 1 | Not known | Not known | Mild | hospital |
| 47. Not known | S. typhimurium | 1 | 1 | Not known | Not known | Mild | hospital |
| 48. Not known | S. typhimurium | 1 | 1 | Not known | Not known | Mild | hospital |
| 49. Not known | S. typhimurium | 1 | 1 | Not known | Not known | Mild | hospital |
| 50. Not known | S. typhimurium | 1 | 1 | Not known | Not known | Mild | hospital |
| 51. Not known | S. tennessec | 1 | 1 | Not known | Diarrhoea and vomiting .. | Moderate | hospital |
| 52. Not known | S. typhimurium | 37 | 37 | Not known | Not known | Not known | hospital |

Cases where organisms

| | | | | | | | |
|---------------------|-----------|---|----|---------------------|--|-----------|-----------------|
| 53. Not known | Not known | — | 5 | 8-30 hrs. | Abdominal pains, diarrhoea, vomiting, anorexia | Mild | 2-4 |
| 54. Not known | Not known | — | 60 | 12-20 hrs. | Diarrhoea and abdominal pain, little vomiting | Mild | 1 |
| 55. Not known | Not known | 8 | 35 | 12 hrs. to few days | Diarrhoea and abdominal pain, little vomiting | Mild | 7 c |
| 56. Not known | Not known | — | 77 | 13-15 hrs. | Diarrhoea, abdominal pain, nausea, one child vomited | Mild | 1-2 |
| 57. Not known | Not known | 7 | 6 | 5 hrs. | Diarrhoea, vomiting, abdominal pain, pyrexia | Mild | 2 c |
| 58. Not known | Not known | 2 | 2 | 4 hrs. | Vomiting and diarrhoea .. | Mild | 1 |
| 59. Not known | Not known | 2 | 2 | 3-4 hrs. | Abdominal pain, vomiting, diarrhoea, pyrexia | Moderate | hospital 3-4 |
| 60. Not known | Not known | 1 | 1 | Few hrs. | Pyrexia and nausea | Mild | 12 |
| 61. Not known | Not known | 4 | 4 | Few hrs. | Diarrhoea | Mild | 1-2 |
| 62. Not known | Not known | 1 | 1 | Few hrs. | Rash | Mild | 2-3 |
| 63. Not known | Not known | 1 | 1 | 12 hrs. | Vomiting, diarrhoea, pyrexia | Moderate | 3 c |
| 64. Not known | Not known | 1 | 1 | ½-1 hr. | Abdominal pain, diarrhoea.. | Moderate | 2-3 |
| 65. Not known | Not known | 1 | 1 | 20 hrs. | Vomiting, pyrexia, syncope, malaise | Moderate | 3-4 |
| 66. Not known | Not known | 1 | 1 | 3-4 hrs. | Nausea, vomiting, diarrhoea, pyrexia | Moderate | 9 c |
| 67. Not known | Not known | 1 | 1 | Few mins. | Nausea, vomiting | Very mild | 3 c |
| 68. Not known | Not known | 9 | 9 | Few hrs. | Vomiting, abdominal pain, slight diarrhoea | Mild | 1-2 |
| 69. Not known | Not known | 1 | 1 | Not known | Pyrexia, nausea, rash, itching | Mild | hospital 1 |
| 70. Not known | Not known | 1 | 1 | 2 hrs. | Rash | Very mild | Few |
| 71. Not known | Not known | 1 | 1 | Few hrs. | Diarrhoea and vomiting .. | Mild | Few |
| 72. Not known | Not known | 1 | 1 | 1 day | Pyrexia, vomiting, abdominal pain | Moderate | hospital ali |
| 73. Not known | Not known | 1 | 1 | Few hrs. | Pyrexia and rash | Mild | 2 c |

| Results of Laboratory investigations | | | | Origin and preparation of food suspected | Place at which food causing illness was consumed | Estimated number at risk | Probable origin of infection or contamination of food |
|--------------------------------------|--------------|---------------|------------|--|--|--------------------------|--|
| s | Food Samples | Food Handlers | Other | | | | |
| ve | — | — | 1 negative | — | — | — | Probably hospital infection. |
| ve | — | — | 4 negative | — | — | 4 | Probably hospital infection. |
| ve | — | — | 5 negative | — | — | 6 | Probably hospital infection. |
| ve | — | — | 5 negative | — | — | 6 | Probably hospital infection. |
| ve | — | — | 2 negative | — | — | 3 | Probably hospital infection. |
| ve | — | — | 1 negative | — | — | 4 | Probably hospital infection. |
| ve | — | — | — | Not known | Hospital | | Notified from Children's hospital Probably hospital infection |

ve not found.

| | | | | | | | |
|-----|------------|-------------|------------|----------------------------|---------------------|-------|--|
| ive | 2 negative | 2 negative | — | Prepared at welfare hostel | Welfare hostel | 25 | May have been tinned veal loaf, sausage meat, or brisket of beef. |
| ive | 1 negative | 7 negative | — | School kitchen | School canteen | 509 | Heat resistant organisms found in faeces from two cases. |
| ive | 1 negative | 1 negative | — | School central kitchen | School | 85 | No food available for samples. Cold roast beef? |
| ive | 4 negative | — | — | School central kitchen | School | 1,633 | Suspected cold roast beef stored at atmospheric temperature overnight. |
| ive | — | 16 negative | — | School central kitchen | School | 2,500 | Cold roast lamb suspected—cooled overnight at atmospheric temperature. |
| ive | 2 negative | — | — | Home | Home | — | Roast beef suspected. |
| | — | — | — | Local butcher's premises | Home | 2 | Pressed chicken suspected. Removed to hospital in neighbouring authority's area. |
| ive | — | — | — | Farm | Home | 1 | Duck egg suspected. |
| ive | — | — | — | Home | Home | 4 | Reheated meat products suspected. |
| | — | — | — | — | — | — | — |
| ive | — | — | — | Home | Home | — | Meat stew suspected. |
| ive | 1 negative | — | — | Local shop purchase | Home | 3 | Bottled herrings in vinegar suspected. |
| ive | — | — | — | Local shop purchase | Home | 2 | Russian tinned crab suspected. |
| ive | — | — | — | Local shop purchase | Place of employment | 3 | Dressed crab. |
| | 2 negative | — | — | Local shop | Home | 1 | Orangeade suspected, chemical poisoning but no evidence of such? |
| | 1 negative | 2 negative | — | Tinned food | Works canteen | 33 | Tin of meat and gravy suspected. |
| ive | — | — | — | Not known | Not known | 1 | Admitted to hospital in neighbouring authority's area. |
| ive | — | — | 4 negative | Not known | Not known | 1 | — |
| ive | — | — | — | Local manufacturers | Cinema | 1 | Ice cream? |
| ive | — | — | 3 negative | Farm | Home | 1 | Egg? |
| ive | — | — | — | Farm | Home | 1 | Raw egg? |

MILK CONTROL SECTION.

The measures taken to control the City's milk are mainly by the taking of milk samples by three Milk Control Inspectors for bacteriological and biological examination (see Table 2) and by the regular inspection of dairies, apparatus, equipment, and methods of distribution, etc.

City Dairies.

Particular attention is directed to the general cleanliness of dairy premises and, on the whole, the standard has been maintained at a high level. In no instance was it found necessary to institute legal proceedings in respect of contraventions of the Milk and Dairies Regulations.

The inspection and checking of the plants at the licensed pasteurising and sterilising establishments in the City have been carried out at least once monthly, in addition to routine visits.

City and "Outside the City" Milk Producers.

Milk supplied to the City by the City milk producers and "Outside the City" producers was examined biologically for the presence of tubercle bacilli as in previous years, although on a much reduced scale inasmuch as the bulk of the milk is now either pasteurised or sterilised at the City dairies licensed for such purpose, so that any tubercle bacilli which might be present in the milk are killed before such milk is consumed by the public.

26 samples of raw milk from City milk producers and 103 samples from "Outside the City" producers coming into the City were examined by the biological test for tubercle bacilli. 3 of the City producers' samples proved positive as also did 6 of the samples taken from "Outside the City" producers, giving a total incidence rate of 7·0 per cent., as against 10·9 per cent. the previous year. The Ministry of Agriculture and Fisheries were notified of these positive results with a request that a veterinary inspection be carried out at the farms concerned.

Although, as has already been stated, a large percentage (estimated as 98 to 99 per cent.) of the above producers' milk is processed after arrival at the City dairies, it is disturbing to know that some of the infected milk was being retailed to the public in its raw state. It is gratifying to state, however, that no epidemic of infectious disease attributable to milk has arisen during the year.

85 graded milks and 56 ungraded milk samples of the above producers' milk were also submitted for bacteriological examination. 71 or 83·5 per cent. of the graded milk samples were satisfactory, whilst of the ungraded milk samples 45 or 80·4 per cent. were satisfactory, which is a big improvement on previous years.

Milk Supply to Hospitals and Schools.

Pasteurised milk supplied to various hospitals and schools in the City has been sampled regularly. The results of the examinations have shown that a uniform high standard of quality and cleanliness has been maintained and on no occasion was the milk found to contain tubercle bacilli.

The raw milk supplied to the Langho Epileptic Colony and Booth Hall Hospital from the attested herds at the Langho Colony farms has been sampled at least once a month. The results of the examinations have shown that the high standard of quality and cleanliness of previous years has been maintained and on no occasion was the milk found to be infected with tubercle bacilli.

The Senior Milk Control Inspector has paid monthly visits to Oakwood Farm, Styal, which supplies Styal Cottage Homes with its milk and samples of the milk have been taken for examination with satisfactory results both bacteriologically and chemically. On no occasion was the milk found to contain tubercle bacilli.

Milk Sampling on behalf of the Ministry of Food.

The sampling of pasteurised, Tuberculin Tested (Pasteurised) and sterilised milk in course of distribution has been carried out by the Milk Control Inspectors on behalf of the Ministry of Food. The results have been extremely good, inasmuch as that of the 517 samples taken, 509 or 98·5 per cent. satisfied the prescribed tests, viz. :—the phosphatase test for efficiency of heat treatment and the $\frac{1}{2}$ -hr. methylene blue test for keeping quality.

General.

Very few complaints were received from the public regarding unsatisfactory milk supply. These were investigated and appropriate action taken.

Ice Cream.

The number of premises registered for the manufacture and/or sale of ice cream continues to increase, there now being 1,626 such premises on the register. The increase, however, is confined mainly to shops from which ice cream is sold in sealed packets only.

Set out in detail, the premises are registered as follows:—

| | |
|------------------------------------|--------------|
| Manufacture for sale | 151 |
| Sale (in " loose " form) | 422 |
| Sale (in " wrapped " form) | 1,053 |
| Total | <u>1,626</u> |

Regular visits of inspection have been made to ice cream premises and the general standard of cleanliness has been good. In no instance was it found necessary to institute legal proceedings in respect of dirty premises or equipment, etc., although a number of warnings was required.

38 samples of ice cream were taken during the year for bacteriological examination. 31 (81·6 per cent.) were placed in Grades 1 and 2 and were, therefore, satisfactory; 6 (15·8 per cent.) fell into Grade 3 which is fairly satisfactory, whilst only 1 (2·6 per cent.) came into the lowest grade (Grade 4).

At the request of the Parks and Cemeteries Department, Sunday visits were paid to the City parks during the summer months by the Milk Control Inspectors and samples of ice cream were taken from ice cream vendors and submitted for bacteriological examination and chemical analysis. The results in each case were satisfactory.

It is satisfactory to note that there have been no cases of infection reported to the Department during the year which could be traced to ice cream consumption.

TABLE 1.

Milk (Special Designations) Regulations, 1949.

LICENCES ISSUED DURING THE YEAR.

Dealer's Licence to use the designation :

“ *Pasteurised* ”

| | | | | | | | |
|--|----|----|----|----|----|----|-------|
| (a) Pasteurising establishments | .. | .. | .. | .. | .. | .. | 14 |
| (b) Other dairies and bottled milk shops | .. | .. | .. | .. | .. | .. | 1,434 |

“ Sterilised ”

| | |
|--|-------|
| (a) Sterilising establishments | 6 |
| (b) Other dairies and bottled milk shops | 1,757 |

“ *Tuberculin Tested (Pasteurised)* ”

| | | | | | | | |
|--|----|----|----|----|----|----|-----|
| (a) Pasteurising establishments | .. | .. | .. | .. | .. | .. | 7 |
| (b) Other dairies and bottled milk shops | .. | .. | .. | .. | .. | .. | 606 |

"Tuberculin Tested"

| | | | | | | | |
|--------------------------------|----|----|----|----|----|----|----|
| Dairies and bottled milk shops | .. | .. | .. | .. | .. | .. | 25 |
|--------------------------------|----|----|----|----|----|----|----|

Supplementary Licences to use the designation :

[illegible]

TABLE 2.

(1) PASTEURISED AND STERILISED MILKS

| Place of Collection of Sample | BACTERIOLOGICAL, &C., EXAMINATION OFFICIAL TEST (Sample to pass a Phosphatase Test and ½-hour Methylene Blue Test) | | | | | BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI | | | | |
|-----------------------------------|--|--------------|------------|----------------|------------|---|----------|------------|----------|------------|
| | No. of samples examined | Satisfactory | | Unsatisfactory | | No. of samples examined | Positive | | Negative | |
| | | No. | Percentage | No. | Percentage | | No. | Percentage | No. | Percentage |
| | | | | | | | | | | |
| Pasteurising plant at dairy | 76 | 75 | 98·7 | 1 | 1·3 | 5 | — | — | 5 | 100·0 |
| Hospitals | 123 | 121 | 98·4 | 2 | 1·6 | 48 | — | — | 48 | 100·0 |
| Schools | 57 | 56 | 98·2 | 1 | 1·8 | 23 | — | — | 23 | 100·0 |
| On road during distribution | 337 | 332 | 98·5 | 5 | 1·5 | 5 | — | — | 5 | 100·0 |
| Totals | 593 | 584 | 98·5 | 9 | 1·5 | 81 | — | — | 81 | 100 0 |

(2) RAW UNTREATED MILK.

(2) RAW UNTREATED MILK.

| Place of Collection of Sample | BACTERIOLOGICAL EXAMINATION | | | | | | | | | | BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI | | | | | | | |
|--|---|-----------------|----------------|-----------------|-------------------------------|----------------|-----------------|----------------|-----------------|------|--|---|------|-----|----------|--|--|--|
| | GRADED MILK (TUBERCULIN TESTED AND ACCREDITED (sold as such)) | | | | | UNGRADED MILK* | | | | | Positive | | | | Negative | | | |
| | OFFICIAL TEST (sample to pass a Methylene Blue Test) | | | | | | | | | | | | | | | | | |
| | Satisfactory | | Unsatisfactory | | No. of samples examined | Satisfactory | | Unsatisfactory | | | | | | | | | | |
| | No. | Per- centage | No. | Per- centage | | No. | Per- centage | No. | Per- centage | | | | | | | | | |
| City Farms.. | 14 | 12 | 85.7 | 2 | 14.3 | 15 | 14 | 93.3 | 1 | 6.7 | 26 | 3 | 11.5 | 23 | 88.5 | | | |
| Corporation Farms | 23 | 22 | 95.7 | 1 | 4.3 | — | — | — | — | — | 20 | — | — | 20 | 100.0 | | | |
| Hospitals (supplied by Corporation Farms) | 12 | 10 | 83.3 | 2 | 16.7 | — | — | — | — | — | 10 | — | — | 10 | 100.0 | | | |
| Mixed farmers from "tipping tanks" at pasteurising establishments | — | — | — | — | — | 6 | 2 | 33.3 | 4 | 66.7 | 2 | — | — | 2 | 100.0 | | | |
| On road during distribution | 15 | 11 | 73.3 | 4 | 26.7 | — | — | — | — | — | 12 | — | — | 12 | 100.0 | | | |
| Individual country farms (on arrival at City Dairies) | 71 | 59 | 83.1 | 12 | 16.9 | 41 | 31 | 75.6 | 10 | 24.4 | 103 | 6 | 5.8 | 97 | 94.2 | | | |
| Totals | 135 | 114 | 84.4 | 21 | 15.6 | 62 | 47 | 75.8 | 15 | 24.2 | 173 | 9 | 5.2 | 164 | 94.8 | | | |

* There is no legal bacteriological standard for raw ungraded milk. For purposes of comparison however the same test as that applicable to Graded Milks has been adopted.

REPORT OF THE PUBLIC ANALYST.

By A. N. Leather, B.Sc., F.R.I.C.

STAFF.

| | | |
|-------------------------------------|-------|------------------------|
| A. N. Leather, B.Sc., F.R.I.C. | .. .. | Public Analyst. |
| F. Dixon, B.Sc., F.R.I.C. | .. .. | Deputy Public Analyst. |
| F. C. Shenton, A.R.T.C.S., A.R.I.C. | .. .. | Assistant Analyst. |

As the tables and comments in the following pages will show, the year has been one of sustained activity in a variety of fields, and I should like to express my appreciation of the work done by all members of the laboratory staff and of the useful collaboration of the sampling officers and all members of the Health Department staff whose duties link with the work of the laboratory.

Within the limits imposed by its construction and adaptation, the laboratory is now in normal operation following the removal from York Place. It may be mentioned that considerable disturbance of storage rooms in the cellar occurred when the heating installation was reorganised (boilers being removed and pipes linked with the new University block in York Place).

The main trends in food regulations based upon existing laws are in the direction of increasing the number of food standards. It will be mentioned later that the new standard for ice cream had a very beneficial effect upon the composition of ice cream. During the year revised standards also came into effect for edible gelatine and for preserves; and in both cases very detailed analyses are necessary to check samples for compliance with the standards imposed. It is generally known that very stringent new limits for the quantities of lead in all foodstuffs are in preparation, and other food standards are being issued. The checking of the composition of foods in relation to the statements of ingredients required by the Labelling of Food Order has become a necessary feature of the work of the laboratory, and some comments at greater length appear later in this report.

Table 1 sets out the samples examined under the Food and Drugs Act and related Acts and Regulations, and states the numbers of samples "adulterated or otherwise giving rise to irregularity," while Tables 2 and 3 give the average composition of milk for the four quarters and for the whole year.

TABLE 1.

Food and Drugs Act, 1938.

Summary of samples examined during the year ended 31st December, 1951.

| Article | Number examined | | | | Number adulterated or otherwise giving rise to irregularity | | | | Per cent. Adulteration |
|--|-----------------|----------|---------|-------|---|----------|---------|-------|------------------------|
| | Formal | Informal | Private | Total | Formal | Informal | Private | Total | |
| Milk | 685 | 504 | — | 1,189 | 95 | 31 | — | 126 | 10·6 |
| Milk (Sterilised) | 96 | 46 | — | 142 | — | — | — | — | — |
| Ice Cream | 23 | 6 | 6 | 35 | 1 | — | — | 1 | 2·8 |
| Alcoholic Liquids, Spirits | 19 | — | — | 19 | — | — | — | — | — |
| Alcoholic Liquids, Wines | 12 | — | — | 12 | — | — | — | — | — |
| Alcoholic Liquids, excluding Wines and Spirits | 8 | 29 | — | 37 | — | — | — | — | — |
| Bacon and Ham | 36 | — | — | 36 | — | — | — | — | — |
| Baking and Golden Raising Powder | 2 | 15 | — | 17 | — | — | — | — | — |
| Barley | 18 | 2 | — | 20 | — | — | — | — | — |
| Biscuits | 22 | 6 | — | 28 | — | 1 | — | 1 | 3·5 |
| Blanc-mange and Dessert Powder | — | 14 | — | 14 | — | — | — | — | — |
| Bottled Fruit and Fruit Juice | 2 | 9 | — | 11 | — | — | — | — | — |
| Bread | 27 | 8 | — | 35 | — | — | — | — | — |
| Butter | 40 | — | — | 40 | — | — | — | — | — |
| Cakes and Pastries | 33 | 9 | — | 42 | — | 2 | — | 2 | 4·7 |
| Cake and Pudding Mixtures | 1 | 24 | — | 25 | — | 4 | — | 4 | 16 |
| Canned :— | | | | | | | | | |
| Cereal Products | — | 3 | — | 3 | — | — | — | — | — |
| Fish | — | 17 | — | 17 | — | — | — | — | — |
| Fruit and Purée | — | 26 | — | 26 | — | 1 | — | 1 | 3·8 |
| Meat Products | — | 29 | — | 29 | — | 2 | — | 2 | 6·9 |
| Puddings (Sweet) | — | 8 | — | 8 | — | — | — | — | — |
| Soup | — | 15 | — | 15 | — | — | — | — | — |
| Vegetables | — | 30 | — | 30 | — | — | — | — | — |
| Whipping Compound | — | 1 | — | 1 | — | — | — | — | — |
| Celery Salt | — | 2 | — | 2 | — | 1 | — | 1 | 50 |
| Cereals (Prepared) | 18 | — | — | 18 | — | — | — | — | — |
| Cheese | 27 | 6 | — | 33 | — | — | — | — | — |
| Chocolate Powder | 6 | 5 | — | 11 | — | — | — | — | — |
| Christmas Pudding | — | 6 | — | 6 | — | — | — | — | — |
| Cocoa | 16 | 1 | — | 17 | — | — | — | — | — |
| Coconut, Desiccated | 13 | 1 | — | 14 | — | — | — | — | — |
| Coffee | 33 | — | — | 33 | — | — | — | — | — |
| Coffee and Chicory Extract (liquid) | 3 | 14 | — | 17 | 1 | 1 | — | 2 | 11 |
| Coffee Extract (dry) | 1 | 2 | — | 3 | — | — | — | — | — |
| Colouring | — | 2 | — | 2 | — | 1 | — | 1 | 50 |
| Cornflour and Prepared Starch | 17 | 3 | — | 20 | — | — | — | — | — |
| Custard Powder | 26 | 6 | — | 32 | — | — | — | — | — |
| Dried Egg | 1 | — | — | 1 | — | — | — | — | — |
| Dried Fruits :— | | | | | | | | | |
| Vine Fruits | 22 | — | — | 22 | — | — | — | — | — |
| Others | 5 | 10 | — | 15 | — | — | — | — | — |
| Dried Herbs | — | 10 | — | 10 | — | — | — | — | — |
| Dried Milk | — | 5 | — | 5 | — | — | — | — | — |
| Dried Vegetables | — | 1 | — | 1 | — | — | — | — | — |
| Dried Pulses | 45 | — | — | 45 | 1 | — | — | 1 | 2·2 |
| Dried Soup Powder | — | 3 | — | 3 | — | — | — | — | — |
| Dripping | 1 | — | — | 1 | — | — | — | — | — |
| Fish Cakes | — | 2 | — | 2 | — | — | — | — | — |
| Fish Dressing | 1 | 4 | — | 5 | — | — | — | — | — |
| Fish (prepared) | 1 | 3 | — | 4 | — | — | — | — | — |
| Flavouring | — | 5 | — | 5 | — | — | — | — | — |
| Flour, Plain | 5 | 1 | — | 6 | — | — | — | — | — |

TABLE 1—continued

| Article | Number examined | | | | Number adulterated or otherwise giving rise to irregularity | | | | Per. cent Adult eration |
|----------------------------------|-----------------|----------|---------|-------|---|----------|---------|-------|-------------------------|
| | Formal | Informal | Private | Total | Formal | Informal | Private | Total | |
| Flour, Self-raising.. .. . | 19 | 3 | — | 22 | — | 1 | — | 1 | 4.5 |
| Food Beverage Powder .. . | 3 | 5 | — | 8 | — | 1 | — | 1 | 12.5 |
| Gelatine | — | 4 | — | 4 | — | — | — | — | — |
| Golden Syrup and Treacle.. | — | 9 | — | 9 | — | — | — | — | — |
| Gravy Browning | — | 16 | — | 16 | — | — | — | — | — |
| Gravy Powder | — | 7 | — | 7 | — | — | — | — | — |
| Ground Almonds | 1 | 2 | — | 3 | — | — | — | — | — |
| Ground Rice | 3 | 1 | — | 4 | — | — | — | — | — |
| Honey | 2 | 11 | — | 13 | — | — | — | — | — |
| Infant Food (Cereal) .. . | — | 1 | — | 1 | — | — | — | — | — |
| Jelly (Table Jelly Preparations) | — | 25 | — | 25 | — | — | — | — | — |
| Lard and Cooking Fat .. . | 34 | 5 | — | 39 | — | — | — | — | — |
| Macaroni and Vermicelli .. | 10 | 1 | — | 11 | — | — | — | — | — |
| Maple Syrup ("Blended") .. | — | 1 | — | 1 | — | 1 | — | 1 | 100 |
| Margarine | 39 | — | — | 39 | — | — | — | — | — |
| Meat Extract | — | 6 | — | 6 | — | — | — | — | — |
| Meat Products :— | | | | | | | | | |
| Meat and Fish Paste .. . | 3 | 12 | — | 15 | — | — | — | — | — |
| Meat, Prepared | 3 | 3 | — | 6 | — | — | — | — | — |
| Sausage and Sausage Meat .. | 12 | 2 | — | 14 | 3 | — | — | 3 | 21 |
| Various (Offals, etc.) .. . | 30 | 11 | — | 41 | — | — | — | — | — |
| Meringue Mix | — | 1 | — | 1 | — | — | — | — | — |
| Milk, Condensed | — | 18 | — | 18 | — | — | — | — | — |
| Mint Jelly | — | 1 | — | 1 | — | — | — | — | — |
| Non-brewed Condiment .. . | — | 4 | — | 4 | — | — | — | — | — |
| Oatcakes.. .. . | — | 4 | — | 4 | — | — | — | — | — |
| Oats.. .. . | 14 | 2 | — | 16 | — | — | — | — | — |
| Peanut Butter | — | 1 | — | 1 | — | — | — | — | — |
| Pickles | 34 | 11 | — | 45 | — | 1 | — | 1 | 2.2 |
| Potato Crisps.. .. . | — | 3 | — | 3 | — | — | — | — | — |
| Preserves | 92 | 5 | — | 97 | 1 | 1 | — | 2 | 2 |
| Rennet Essence | — | 3 | — | 3 | — | — | — | — | — |
| Rice.. .. . | 20 | 1 | — | 21 | — | — | — | — | — |
| Saccharin Tablets | — | 2 | — | 2 | — | — | — | — | — |
| Sago | 6 | — | — | 6 | 1 | — | — | 1 | 16.6 |
| Salad Cream and Mayonnaise .. | — | 18 | — | 18 | — | — | — | — | — |
| Salt | — | 9 | — | 9 | — | — | — | — | — |
| Sandwich Spread | — | 5 | — | 5 | — | — | — | — | — |
| Sauces :— | | | | | | | | | |
| Tomato | — | 7 | — | 7 | — | — | — | — | — |
| Other than Tomato | — | 38 | — | 38 | — | — | — | — | — |
| Semolina.. .. . | 13 | 2 | — | 15 | — | — | — | — | — |
| Soft Drink Powder | 1 | 9 | — | 10 | — | — | — | — | — |
| Soft Drinks | 47 | 19 | — | 66 | — | — | — | — | — |
| Soup Powder.. .. . | — | 2 | — | 2 | — | — | — | — | — |
| Spices | 3 | 40 | — | 43 | 1 | 1 | — | 2 | 4.6 |
| Stuffing | — | 12 | — | 12 | — | — | — | — | — |
| Suet (Prepared) | 6 | 4 | — | 10 | 1 | — | — | 1 | 10 |
| Sugar | 59 | — | — | 59 | — | — | — | — | — |
| Sweet Spread | — | 6 | — | 6 | — | — | — | — | — |
| Sweets (Sugar Confectionery) .. | 27 | 4 | — | 31 | — | — | — | — | — |
| Synthetic Cream | — | 4 | — | 4 | — | — | — | — | — |
| Synthetic Cream Powder .. . | 1 | 1 | — | 2 | 1 | 1 | — | 2 | 100 |
| Tapioca | 4 | — | — | 4 | 1 | — | — | 1 | 25 |
| Tea | 35 | — | — | 35 | — | — | — | — | — |
| Vegetable Salad | — | 1 | — | 1 | — | — | — | — | — |
| Vinegar (Malt) | 38 | 2 | — | 40 | — | — | — | — | — |
| Yeast Extract | — | 2 | — | 2 | — | — | — | — | — |
| Total Foods | 1,824 | 1,259 | 6 | 3,089 | 107 | 51 | — | 158 | 5.1 |

TABLE 1—continued

| Article | Number examined | | | | Number adulterated or otherwise giving rise to irregularity | | | | Per. cent. Adulteration |
|---|-----------------|----------|---------|-------|---|----------|---------|-------|-------------------------|
| | Formal | Informal | Private | Total | Formal | Informal | Private | Total | |
| Ammoniated Tincture of Quinine | — | 2 | — | 2 | — | — | — | — | — |
| Aspirin Tablets | 1 | 5 | — | 6 | — | 1 | — | 1 | 16.6 |
| Bicarbonate of Soda | 1 | 4 | — | 5 | — | — | — | — | — |
| Blackcurrant Syrup | — | 1 | — | 1 | — | — | — | — | — |
| Boracic Powder | — | 1 | — | 1 | — | — | — | — | — |
| Borax | — | 2 | — | 2 | — | — | — | — | — |
| Compound Aspirin Tablets (proprietary) .. | — | 1 | — | 1 | — | — | — | — | — |
| Compound Glycerine of Thymol | 3 | 2 | — | 5 | — | — | — | — | — |
| Compound Syrup of Figs | — | 1 | — | 1 | — | — | — | — | — |
| Cough Mixture | — | 6 | — | 6 | — | — | — | — | — |
| Disinfectant | — | 6 | — | 6 | — | — | — | — | — |
| Easton's Syrup | — | 1 | — | 1 | — | — | — | — | — |
| Epsom Salts | — | 1 | — | 1 | — | — | — | — | — |
| Extract of Malt | — | 1 | — | 1 | — | — | — | — | — |
| Eye Lotion | — | 1 | — | 1 | — | — | — | — | — |
| Friar's Balsam | 1 | — | — | 1 | — | — | — | — | — |
| Glauber's Salt | 1 | — | — | 1 | — | — | — | — | — |
| Glucose (Powdered) | — | 2 | — | 2 | — | — | — | — | — |
| Glucose (Lozenges) | — | 1 | — | 1 | — | — | — | — | — |
| Glycerine, Lemon and Ipecac | — | 1 | — | 1 | — | — | — | — | — |
| Glycerine | 3 | 2 | — | 5 | — | — | — | — | — |
| Hydrogen Peroxide | — | 1 | — | 1 | — | — | — | — | — |
| Indian Brandee | — | 1 | — | 1 | — | — | — | — | — |
| Insecticide | — | 1 | — | 1 | — | — | — | — | — |
| Medicated Sweets | 4 | 5 | — | 9 | — | — | — | — | — |
| Milk of Magnesia | — | 2 | — | 2 | — | — | — | — | — |
| Oil :— | | | | | | | | | |
| Camphorated | 1 | 3 | — | 4 | — | 1 | — | 1 | 25 |
| Castor | 4 | — | — | 4 | — | — | — | — | — |
| Eucalyptus | 1 | 1 | — | 2 | — | — | — | — | — |
| Liquid Paraffin | 4 | 6 | — | 10 | — | — | — | — | — |
| Olive | 4 | 7 | — | 11 | — | — | — | — | — |
| Ointment, Boric Acid | — | 3 | — | 3 | — | — | — | — | — |
| Ointment, Sulphur | — | 1 | — | 1 | — | — | — | — | — |
| Ointment, Zinc | — | 1 | — | 1 | — | — | — | — | — |
| Ointment, Zinc and Castor Oil | — | 1 | — | 1 | — | — | — | — | — |
| Parrish's Chemical Food | — | 2 | — | 2 | — | — | — | — | — |
| Petroleum Jelly | — | 2 | — | 2 | — | — | — | — | — |
| Proprietary Medicine Tablets | — | 2 | — | 2 | — | — | — | — | — |
| Rose Hip Syrup | — | 1 | — | 1 | — | — | — | — | — |
| Saline (Effervescent) | — | 3 | — | 3 | — | — | — | — | — |
| Saline (Non-effervescent) | — | 2 | — | 2 | — | — | — | — | — |
| Seidlitz Powders | — | 1 | — | 1 | — | — | — | — | — |
| Solution of Peppermint | — | 1 | — | 1 | — | — | — | — | — |
| Syrup of Figs | — | 1 | — | 1 | — | — | — | — | — |
| Syrup of Hypophosphites | — | 1 | — | 1 | — | — | — | — | — |
| Syrup of Squills | 4 | — | — | 4 | — | — | — | — | — |
| Tincture of Iodine | 5 | 1 | — | 6 | — | — | — | — | — |
| Tonic capsules | — | 1 | — | 1 | — | — | — | — | — |
| Yeast Tablets | — | 1 | — | 1 | — | — | — | — | — |
| Total Drugs | 37 | 93 | — | 130 | — | 2 | — | 2 | 1.5 |
| Add Total Foods | 1,824 | 1,259 | 6 | 3,089 | 107 | 51 | — | 158 | 5.1 |
| Total Food and Drugs | 1,861 | 1,352 | 6 | 3,219 | 107 | 53 | — | 160 | 4.9 |

TABLE 2.
Composition of Milk.
Quarterly Average Table.

| Quarter | All Milks | | | | Genuine Milks | | | | Adulterated Milks | | | |
|--------------|-----------|------------------|------|--------------|---------------|------------------|------|--------------|-------------------|------------------|------|--------------|
| | No. | Non-fatty solids | Fat | Total solids | No. | Non-fatty solids | Fat | Total solids | No. | Non-fatty solids | Fat | Total solids |
| First | 357 | 8.64 | 3.35 | 11.99 | 316 | 8.69 | 3.43 | 12.12 | 41 | 8.28 | 2.69 | 10.97 |
| Second | 380 | 8.72 | 3.39 | 12.11 | 319 | 8.77 | 3.50 | 12.27 | 61 | 8.49 | 2.77 | 11.26 |
| Third | 295 | 8.75 | 3.54 | 12.29 | 278 | 8.77 | 3.57 | 12.34 | 17 | 8.40 | 2.98 | 11.38 |
| Fourth | 299 | 8.80 | 3.72 | 12.52 | 292 | 8.81 | 3.74 | 12.55 | 7 | 8.18 | 2.90 | 11.08 |

TABLE 3.
Composition of Milk.
Annual Average Table.

| Year | All Milks | | | | Genuine Milks | | | | Adulterated Milks | | | |
|------------|-----------|------------------|------|--------------|---------------|------------------|------|--------------|-------------------|------------------|------|--------------|
| | No. | Non-fatty solids | Fat | Total solids | No. | Non-fatty solids | Fat | Total solids | No. | Non-fatty solids | Fat | Total solids |
| 1951 | 1,331 | 8.72 | 3.50 | 12.22 | 1,205 | 8.76 | 3.56 | 12.32 | 126 | 8.39 | 2.78 | 11.17 |

TABLE 4.

The following samples of milk showed figures for non-fatty solids below the presumptive limit of 8.5 per cent. non-fatty solids fixed by the Sale of Milk Regulations 1939, but were adjudged genuine (apart from any deficiency in fat) on the Hortvet freezing-point test :—

| Serial Number | Total solids per cent. | Fat per cent. | Non-fatty solids per cent. | Freezing point °C. (Hortvet) | Acidity °Richmond |
|-------------------------|------------------------|---------------|----------------------------|------------------------------|-------------------|
| 7A | 11.62 | 3.40 | 8.22 | 0.539 | 18 |
| 507B | 11.80 | 3.50 | 8.30 | 0.533 | 18 |
| 1009C | 11.38 | 3.00 | 8.38 | 0.542 | 18 |
| 1019C | 10.93 | 3.00 | 7.93 | 0.542 | 18 |
| 1020C | 11.51 | 3.60 | 7.91 | 0.542 | 17 |
| 1021C | 10.60 | 2.65 | 7.95 | 0.542 | 18 |
| 1022C | 10.12 | 2.30 | 7.82 | 0.539 | 18 |
| 1023C | 10.65 | 2.75 | 7.90 | 0.543 | 17 |
| 1024C | 11.36 | 3.00 | 8.36 | 0.538 | 17 |
| 1025C | 11.34 | 2.95 | 8.39 | 0.539 | 18 |
| 1026C | 11.29 | 2.85 | 8.44 | 0.539 | 17 |
| 1041C | 11.26 | 2.95 | 8.31 | 0.534 | 17 |
| 529B | 12.10 | 4.00 | 8.10 | 0.538 | 17 |
| 530B | 11.28 | 2.80 | 8.48 | 0.539 | 17 |
| 531B | 11.31 | 2.90 | 8.41 | 0.535 | 17 |
| 41A | 11.34 | 2.85 | 8.49 | 0.533 | 18 |
| 569B | 11.66 | 3.50 | 8.16 | 0.529 | 18 |
| 570B | 11.64 | 3.40 | 8.24 | 0.534 | 18 |
| 62A | 11.74 | 3.45 | 8.29 | 0.540 | 17 |
| 64A | 11.76 | 3.30 | 8.46 | 0.536 | 16 |
| 65A | 11.39 | 3.10 | 8.29 | 0.544 | 17 |
| 66A | 12.56 | 4.20 | 8.36 | 0.548 | 16 |
| 1095C | 11.65 | 3.30 | 8.35 | 0.554 | 15 |
| 1101C | 11.21 | 2.90 | 8.31 | 0.541 | 18 |
| 1129C | 11.81 | 3.55 | 8.26 | 0.542 | 18 |
| 1130C | 11.10 | 2.90 | 8.20 | 0.537 | 18 |
| 1157C | 11.46 | 3.35 | 8.11 | 0.533 | 17 |
| 140A | 10.48 | 2.40 | 8.08 | 0.538 | 18 |
| 142A | 11.06 | 2.60 | 8.46 | 0.535 | 19 |
| 144A | 10.83 | 2.40 | 8.43 | 0.540 | 20 |
| 145A | 11.15 | 2.70 | 8.45 | 0.535 | 19 |
| 199A | 11.13 | 2.75 | 8.38 | 0.537 | 18 |
| 1206C | 11.62 | 3.40 | 8.22 | 0.533 | 17 |
| 1207C | 11.62 | 3.40 | 8.22 | 0.535 | 17 |
| 1211C | 11.20 | 2.95 | 8.25 | 0.536 | 18 |
| 1230C | 10.97 | 2.70 | 8.27 | 0.537 | 19 |
| 1232C | 10.60 | 2.60 | 8.00 | 0.541 | 19 |
| 1234C | 10.77 | 2.65 | 8.12 | 0.540 | 19 |
| 249A | 11.21 | 2.80 | 8.41 | 0.540 | 16 |
| 250A | 11.20 | 2.80 | 8.40 | 0.540 | 16 |
| 751B | 10.82 | 2.65 | 8.17 | 0.530 | 16 |
| 1266C | 11.22 | 3.10 | 8.12 | 0.536 | 16 |
| 1267C | 11.28 | 3.10 | 8.18 | 0.542 | 16 |
| 1268C | 11.05 | 3.00 | 8.05 | 0.536 | 16 |
| 277A | 11.84 | 3.50 | 8.34 | 0.540 | 17 |
| 278A | 11.40 | 3.20 | 8.20 | 0.533 | 18 |
| 282A | 11.50 | 3.15 | 8.35 | 0.537 | 17 |
| 1279C | 11.03 | 2.55 | 8.48 | 0.543 | 18 |
| 1313C | 10.92 | 2.75 | 8.17 | 0.543 | 16 |
| 1316C | 11.06 | 2.65 | 8.41 | 0.536 | 20 |
| 349A | 11.04 | 2.75 | 8.29 | 0.541 | 15 |
| 1331C | 11.14 | 2.80 | 8.34 | 0.548 | 16 |
| 814B | 12.53 | 4.40 | 8.13 | 0.545 | 15 |
| 815B | 12.02 | 3.80 | 8.22 | 0.548 | 16 |
| 1347C | 11.71 | 3.25 | 8.46 | 0.537 | 18 |
| 837B | 11.22 | 2.90 | 8.32 | 0.531 | 18 |
| 383A | 12.22 | 3.85 | 8.37 | 0.549 | 18 |
| 390A | 11.90 | 3.50 | 8.40 | 0.542 | 18 |
| 887B | 10.90 | 2.65 | 8.25 | 0.547 | 18 |
| 888B | 10.68 | 2.55 | 8.13 | 0.544 | 18 |
| 913B | 10.94 | 2.60 | 8.34 | 0.534 | 17 |
| 460A | 10.69 | 2.35 | 8.34 | 0.542 | 18 |
| 461A | 10.90 | 2.50 | 8.40 | 0.542 | 17 |
| 463A | 10.76 | 2.45 | 8.31 | 0.535 | 18 |
| 510A | 10.93 | 2.50 | 8.43 | 0.543 | 17 |
| 1505C | 11.35 | 3.30 | 8.05 | 0.540 | 18 |
| 1506C | 10.64 | 2.80 | 7.84 | 0.541 | 17 |
| 1507C | 11.28 | 3.20 | 8.08 | 0.540 | 18 |
| 1508C | 11.82 | 3.55 | 8.27 | 0.546 | 18 |
| 534A | 11.86 | 3.55 | 8.31 | 0.548 | 17 |
| 1580C | 11.02 | 2.70 | 8.32 | 0.539 | 17 |
| 669A | 10.74 | 2.40 | 8.34 | 0.541 | 18 |
| 1709C | 11.68 | 3.40 | 8.28 | 0.551 | 17 |
| 784A | 11.66 | 3.20 | 8.46 | 0.545 | 19 |
| 1789C | 11.94 | 3.60 | 8.34 | 0.537 | 14 |
| 1085A | 11.19 | 3.05 | 8.14 | 0.540 | 18 |
| Appeal to Cow Samples : | | | | | |
| 806B | 11.64 | 3.22 | 8.42 | 0.545 | 17 |
| 807B | 11.97 | 3.54 | 8.43 | 0.543 | 18 |

Adulteration of Milk during the Year.

On referring to Table 1 it will be noticed that out of a total of 1,189 samples of milk, 126, or 10·6 per cent., are reported as being adulterated. However, when the figure is expressed in this form, a somewhat exaggerated picture of the situation is produced. Milk being transported from the farm to the City is conveyed in churns of some 10 gallons capacity, so that six or more samples received at the laboratory may represent only one consignment, or one day's supply of milk from a farm.

Of those 126 samples, 39 samples (31 being formal and 8 informal) contained added water varying from 1 per cent. to 18·8 per cent, and of these 39 samples 20 were also deficient in fat.

In 81 instances where a sample of milk has been reported as being deficient in fat, the percentage of fat has been calculated on the whole consignment and the overall fat content has been found to be 3·0 per cent or more. The 81 samples in question formed part of 48 consignments.

As an example, a consignment was represented by 4 samples, the fat contents of which were 4·35, 4·50, 2·50 and 3·20 per cent. respectively. Taking into account the gallonage which each sample represented, the average fat content for the whole consignment was found to be 3·87 per cent., and since the consignment was destined for a single recipient, the recipient in question was not prejudiced, so long as the consignment was treated as a whole, even though one churn had only 2·50 per cent. of fat. Nevertheless, the sample containing only 2·50 per cent. of fat was recorded as "adulterated."

Twelve samples of adulterated milk were the subject of legal proceedings. These samples represented 6 consignments from farmers. Three of the consignments were represented by 4, 3 and 2 samples respectively, the remainder being represented by single samples. The number of summonses issued was 17 (in some instances both fat abstraction and addition of water were alleged in the same milk). Fines were inflicted upon each count and totalled £52, while payment of costs amounting to £10 10s. 8d. was ordered.

The Hortvet freezing-point test again served a valuable purpose in distinguishing between milk naturally poor in non-fatty solids and milk rendered poor in non-fatty solids by the addition of water. Table 4 shows all the samples adjudged, as a result of that test, to be free from extraneous water in spite of their low content of non-fatty solids. The test was applied during the year to every sample showing less than 8·5 per cent. of non-fatty solids, with the exception of only one or two samples which had very rapidly become too sour.

Adulteration of Samples other than Milk.

Table 5 sets out other samples of food and drugs found to be adulterated or unsatisfactory. Following the table are some notes on matters of interest relating to individual samples.

TABLE 5. Samples other than Milk.
Adulterated and Other Unsatisfactory Statutory Samples and Action Taken.

| Informal Samples | | | | | | | | | Article | Formal Samples | | | | |
|-------------------------------|-----------|------------------------|----------------------------|---|---|------------------------------|-----------------|---|------------------------------------|----------------|---|---|---|---|
| Adulterated or unsatisfactory | Cautioned | Formal sample obtained | Formal sample being sought | Adulteration deemed too slight for further action | Referred to M.O.H. of Local Authority concerned | Referred to Ministry of Food | Stock withdrawn | Action taken under Unsound Food Clauses | | | | | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Beef Suet | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | Cake | 1 | 1 | 1 | 1 | 1 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Cake Mixture | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Celery Salt | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Chocolate Biscuit | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Coffee and Chicory Essence | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Food Beverage Powder | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Ground Cinnamon | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Ice Cream | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Imitation Cream Powder | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Lentils | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Luncheon Meat—Canned | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Maple Syrup | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Mincemeat (Preserve) | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Pepper Compound | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Pickled Red Cabbage | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Sago | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Sausages | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Sausages—Canned | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Seed Tapioca | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Self-raising Flour | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Strawberries—Canned | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Synthetic Colour | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Aspirin Tablets | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Camphorated Oil | 1 | 1 | 1 | 1 | 1 |

Some Notes on Particular Cases of Adulteration or Irregularity.

Cake (informal, bearing label : “ . . . These cakes are guaranteed to contain pure butter.”) The cake was found on analysis to contain less than 2 per cent. of butter, though the total fat content was 20 per cent. The sample was reported as having an unsatisfactory label.

[The bakery firm was cautioned.]

Cake Mixtures. Two informal samples sold in cartons failed to comply fully with the Labelling of Food Order which requires a statement of ingredients (in order of their proportion by weight). One carton had the statement : “ Ingredients : Flour, baking powder, flavour, colour,” while on another part of the carton an adhesive label bore the description : “ Sugar-sweetened cake flour.” According to the analysis, the major ingredients should have been stated in the following order : Flour, sugar, baking powder. The other sample was in a carton bearing the description, “ Chocolate cake sweetened with sugar,” and the statement, “ This packet contains the following : Flour, sugar, vegetable edible oil, arrowroot, dried skimmed milk powder, semolina, dried egg, baking powder, salt and flavouring.” Analytical evidence of all these ingredients, substantially in the stated order, was obtained ; except that arrowroot was absent, and cocoa was present. Shortages of paper and cartons have to be taken into consideration in assessing the seriousness of such unsatisfactory labelling.

[In the latter case the packer was cautioned.]

Celery Salt. This informal sample was contained in a glass bottle with a perforated lid. The bottle bore a label with the description “ Celery salt,” but no other statement of ingredients. The proportion of salt was found to be 86 per cent, and the remainder of the sample consisted of ground celery seed. It appeared to me that according to the Labelling of Food Order the ingredients should have been stated in the order : Salt, celery seed.

[The question was raised in letters to the packer and to the Labelling Division of the Ministry of Food.]

Coffee and Chicory Essence.—Informal and formal samples of a particular brand were found to contain respectively only 0·17 per cent. and 0·19 per cent. of caffeine, whereas the Food Standards (Liquid Coffee Essences) Order requires that liquid coffee and chicory essence shall contain 0·25 per cent of caffeine derived from coffee. There is a proviso to the Order which allows a defendant to be successful in any proceedings for failing to comply with the standard if he proves that not less than 2lb. of roasted coffee was used in the preparation of each gallon of coffee and chicory essence. The formal sample was certified to be deficient in caffeine to the extent of 24 per cent. of the required amount.

[Sampling officers visited the distributors in Birmingham and found that the product was manufactured in Scotland. Manufacturers claimed to have used 2lb. coffee to the gallon.]

Colouring (informal). A sample sold as a liquid colouring for foods was found to contain a mouldy growth, and inquiry showed it to be old stock.

[Stock withdrawn from sale.]

Dried Pulses. A formal sample of lentils, while having on the whole a clean and sound appearance, was found on examination to contain 0·65 per cent. of small stones about the same size as lentils, and also about 0·4 per cent. of other foreign matter, mainly “ seed tapioca ” with a few seed husks and woody particles.

[The vendor was warned.]

Flour, Self-raising (informal). A shopkeeper reported that customers had complained of a "bitter" taste in articles made from a certain brand of pre-packed self-raising flour. A sample was therefore procured and, on analysis, was found to contain only 0.22 per cent. of available carbon dioxide (whereas the Food Standards (Self-raising Flour) Order 1946, requires 0.40 per cent. of available carbon dioxide), so that the sample was deficient in available carbon dioxide to the extent of 45 per cent. of the required amount. Analysis further showed an error in the relative proportions of the bicarbonate of soda and the phosphatic ingredients used in the mixing of the flour. A further sample from another batch was found to be normal in composition.

[An investigation by the Sampling Officer at the place of manufacture independently revealed an error in the mixing of a certain batch of self-raising flour.]

Food Beverage Powder (informal). This sample belonged to that class of products intended to be stirred into hot milk for use as a beverage. Instead of being in the usual granular condition, however, the contents of the tin were found to be in the form of a solid block. The lid of the tin was a simple cap, with a band of adhesive tape, whose adhesion was visibly imperfect. The moisture content of the sample was found to be 10.5 per cent., whereas a satisfactory sample contained only 3.5 per cent. of moisture. The sample was thus out of condition, and though not injurious to health, could not be used in the manner described on the label, and to that extent was unsuitable for consumption.

[On investigation, the Sampling Officer found the sample to be "old stock," and that no similar stock remained.]

Maple Syrup (informal). This product was contained in a glass jar having a label with (among other printed matter) the words "Maple Syrup," "flavoured," and "This syrup is skilfully blended." There was no other statement of ingredients. The sample was found to contain at least 60 per cent. of glucose syrup. These facts indicate a complete disregard of the Labelling of Food Order, which requires a statement of ingredients or, alternatively, a gross adulteration. Accordingly a formal sample was promptly requested.

[Immediate action by the Sampling Officer failed to procure a formal sample. It appeared that stocks had been withdrawn by the wholesaler.]

Sausages (formal). One sample of beef sausage was certified to contain only 38 per cent. of meat instead of the 50 per cent. required by the Meat Products and Canned Meat Order.

[In view of a shortage of meat, a new amendment to the Order was issued three days after this sample was procured. The effect of the amendment was to permit within limits the supplementation of the meat by means of milk powder. In the circumstances the maker of the sausages was not prosecuted, but was warned that he must comply with the Order.]

Two samples of pork sausages were examined after the Order had been amended to the extent that though the standard for pork sausage remained at 65 per cent. meat, 10 per cent. of the meat might be replaced by milk powder; six parts of milk powder being deemed equivalent for this purpose to 10 parts of meat. Both samples were deficient in "meat" in comparison with the requirements of the Order, but in my opinion the deficiency was almost entirely accounted for by a failure to add in full the permitted amount of milk powder.

[In these cases the facts were reported to the Ministry of Food, who are primarily responsible for the enforcement of the Order.]

Pickles (informal). A sample of pickled red cabbage was contained in a one-pound "jam-jar" having a metal lid with a substantial rubber gasket, the lid being held in position by a metal band. The pickles were of normal appearance before opening. On removing the band the lid was forced off by internal pressure and effervescence occurred in the liquid part of the contents. No evidence of putrefactive changes was noted, but the fluid contained a sediment composed of a mass of micro-organisms. Further fermentation, after opening the jar, was not noted. The acidity of the fluid, namely 3·0 per cent. as acetic acid, was about normal. The sample was reported as unsuitable for consumption.

[Remaining stocks were withdrawn from sale.]

Preserves : Mincemeat (informal and formal). A consumer complained that the fat in a certain brand of mincemeat was "like candle-grease." On analysis the fat was found to be an edible fat of the nature of hardened oil, and further the proportion of fat was in accordance with the requirements of the Food Standards (Preserves) Order. Since mincemeat is cooked before consumption, I do not think there was any very real cause for complaint as to the nature of the fat. It was noted, however, that the sample failed to comply with the standard fixed by the Order for soluble solids, and accordingly a formal sample of the same brand of mincemeat was requested. On examination the formal sample was found to contain only 60·0 per cent. of "soluble solids," as defined in the Order, whereas the standard is fixed at 65·0 per cent. The deficiency in soluble solids thus amounted to 7·6 per cent. of the required proportion.

[Sampling Officers visited the factory and investigated the deficiency. Subsequently a warning was issued.]

Sago and Tapioca (formal). A sample sold as sago was found on examination to be tapioca, and on another occasion a sample sold as tapioca was found to be sago. Tapioca and sago are entirely different in origin, though similar in food value, and they should, of course, be correctly described.

[The vendors and packers were warned.]

Spices : Ground Cinnamon (formal). This sample consisted of the contents of a number of small cartons clearly labelled "Ground Cinnamon." On examination the sample was found to be a mixture whose main ingredient was cinnamon, but it also contained coriander and smaller amounts of other spices. It was thought likely that the mixture was intended for sale as "mixed spice," and that it had been packed in the wrong cartons or wrongly labelled.

[An explanation was requested from the packers, who replied that a packing error had been traced and that the cartons bearing erroneous labels would be withdrawn.]

Spices : "Pepper Compound" (informal). This product was packed in a carton bearing a label having the descriptive words, "... Pepper compound ... containing pepper, pepper essence and wheat flour." On examination the sample was found to contain at least 80 per cent. of wheat flour, which should therefore appear first in the statement of ingredients (Labelling of Food Order).

[The packer was warned.]

Suet, Prepared (formal). This sample was found on analysis to contain only 80·3 per cent. of fat, whereas the Food Standards (Shredded Suet) Order requires 83 per cent. of fat. A further formal sample was requested, and this proved to be satisfactory.

Synthetic Cream Powder (informal and formal). The tin containing this product bore printed matter, in addition to a brand name, including the following words : " From powder to artificial cream in three minutes " and " Ingredients—edible oil, non-fatty milk powder, sugar, fatty acid esters, edible gum, colour and flavour." The results of analysis did not disagree at all with the statement of ingredients, and I think there can be no suggestion that the label would in any way mislead the ordinary purchaser. Artificial cream, however, is defined in the Food and Drugs (Milk, Dairies and Artificial Cream) Act of 1950 ; and a product made up from the sample in question would fail to comply with that definition, in so far as it would contain substantial amounts of edible oil (other than butter) and of sugar (other than milk sugar). Exception was therefore taken to the claim on the tin, and in published advertisements, that " artificial cream " could be made from this brand of powder.

[The matter was brought to the attention of the packers and of the Labelling Division of the Food Ministry. Later the label was modified by agreement.]

Insect Infestation and Accidental Foreign Bodies in Food. There was evidence during the year of an increased interest in the general hygiene of food-packing. Several complaints were investigated in the laboratory and, where possible, the findings were followed up to the place of origin or communicated to the responsible packers. The following instances were included as " giving rise to irregularity " in Table 1.

Biscuits (private complaint, " chocolate biscuit "). Among the original wrappings of the biscuit, which had been partly consumed, was a living larva resembling that of an ordinary flour moth.

[The biscuit was reported as unfit for human consumption, and the matter was referred for action under the unsound food clauses of the Food and Drugs Act.]

Cake (informal). A cellophane-wrapped " jam roll " was purchased by a Sampling Officer in the ordinary way and submitted for examination. Nothing abnormal was found in its composition as an article of cake confectionery. Between the cake and the wrapper and partly impressed upon the cake was a dead fly (a common housefly). The fly had not been baked with the cake but had been wrapped with it. The presence of the fly, besides being aesthetically objectionable, indicates some slight breakdown of hygienic precautions during wrapping.

[Information was sent to the Medical Officer of Health of the area where the cake was packed.]

Cake Mixture (two informal samples). A complainant's sample was contained in a paper bag within a carton, which had, of course, been opened. The flour mixture was " webbed " in a way suggesting attack by the common flour moth. Accordingly an unopened carton was purchased from the same source, and on examination " webbing " was again extensive. In this sample a living larva, resembling that of a flour moth, was found.

[Action was taken under the unsound food clauses of the Food and Drugs Act.]

Canned Fruit : Strawberries in Syrup (informal complaint). This can had, of course, been opened before submission. In the syrup with the fruit was a complete beetle about $\frac{3}{4}$ in. in length. The beetle was sent for examination to Mr. W. D. Hincks, M.P.S., F.R.E.S., Department of Entomology, Manchester Museum, who reported : " The beetle is *Feronia Melanaria*, a common predacious ground beetle (*Carabidae*). It is purely a casual in regard to the tin of strawberries in which it was found." The fruit was packed in Denmark.

[The importers were cautioned.]

Canned Meat Products : Sausages in Brine (informal complaint). Adhering to one of the sausages was an ordinary house-fly. This had the appearance, in my opinion, of having been processed with the sausages rather than of having entered the can after it was opened. The product was packed in Portugal.

[The importers were cautioned.]

Canned Meat Products : Luncheon Meat (informal complaint). The contents of the can had been removed mostly in a block, but some slices had been cut. Below the slices was a hollow in the block containing a finger bandage shaped and knotted for a finger. The appearance of the hollow was such as to support the opinion that the bandage had indeed been embedded in that position when the luncheon meat was packed. The bandage was found, when unrolled, to consist of gauze measuring about 1 yd. by 1 in. The product was packed in Holland.

[Distributors and importers collaborated in tracing the consignment. Importers communicated with the Dutch packers, who undertook to reinforce hygienic precautions. The Ministry of Food was informed of the facts.]

Drugs.

Aspirin Tablets (informal). The sample was contained in a screw-capped glass bottle which bore the seller's printed label. The words used on the label to describe the article were :—

" COMPRESSED ASPIRIN TABLETS "

" Tab. Aspirin Co. B.P.C. "

On analysis the sample was found to consist of ordinary five-grain aspirin tablets (as described in the *British Pharmacopœia*). It is quite erroneous to apply the abbreviated name " Tab. Aspirin Co. B.P.C." (which means Compound Tablets of Aspirin, *British Pharmaceutical Codex*) to Aspirin Tablets.

[The vendor was cautioned, and undertook to delete the erroneous words in future.]

Camphorated Oil (informal). This sample was contained in the bottle provided by the seller and bearing the original printed label " Camphorated Oil B.P." The sample was found on analysis to contain only 17·7 per cent. wt./wt. of camphor, whereas the *British Pharmacopœia* requires 20·0 per cent. wt./wt. of camphor. The *Pharmacopœia* fixes limits of 19·0 to 21·0 per cent., and the sample therefore failed to comply with the lower limit, and was deficient in camphor. The deficiency amounted to 11·5 per cent. of the required amount of camphor.

[A formal sample was requested, and was in fact procured and found to be genuine ; though this occurred after the end of the year 1951.]

Labelling of Food.

In my Annual Report for last year I commented at some length on certain aspects of the legal requirements governing the quality of milk and on their practical effect. In this report I propose to comment upon the present legal and practical position in relation to the labelling of food. At the present time the principal means of controlling the labelling of food is provided by the Labelling of Food Order, 1950. A brief account of the legal provisions leading up to the present situation may be of interest. The Food and Drugs Act, 1938, empowered the Minister of Health to make regulations

“ requiring wrappers or containers enclosing or containing food of various kinds to be labelled or marked in accordance with the regulations.”

Apart from this general power given to the Minister of Health, the 1938 Act itself had provision for specifying and enforcing the labelling of certain special foodstuffs, e.g. margarine and margarine-cheese. The Act also (while repealing earlier legislation) specifically kept in force the “ Public Health ” Regulations controlling the composition of dried milk and condensed milk ; and these Regulations contain detailed rules for labelling. In the same way the “ Public Health ” (Preservatives and Colouring Matters in Food) Regulations were kept in force, and these contain rules for the labelling of certain foodstuffs containing preservatives.

The Minister of Health did not, in fact, make use of his powers to control by Regulation the labelling of food generally, and shortly after the outbreak of war in 1939 a new ministry, the Ministry of Food, was created to control the various aspects of war-time food supply. During the early years of the war, shortages of certain articles of food led to the offering for sale of a large number of food substitutes. So long as the sea routes were kept open we were assured of wheat supplies from the American continent, and flour was never rationed. In a high proportion of instances food substitutes consisted of flour, “ dressed up ” and sold under such names as “ milk substitute ” and “ fat substitute.” The Minister of Food was given powers to prevent the sale of all food substitutes unless in each case the formula had been approved and a licence issued by the Minister. Licensed food substitutes had to bear a label stating the licence number. In this way, among others, a detailed knowledge of various food mixtures was gained by Ministry departments.

The new Ministry of Food was created and given wide powers by special war-time legislation. Under the Emergency Powers (Defence) Acts the Defence (Sale of Food) Regulations were later made to give the Minister of Food all the powers already held by the Minister of Health as to the labelling of food ; indeed, to some extent fuller powers were given. From that time the Minister of Food has continued to have power to issue Regulations governing the labelling of food, but since the end of the war these powers, originally given under Defence Acts have only been kept in force by year-to-year legislation. These powers have been effectively used, and there is now in existence a considerable degree of statutory control, not only over the labelling but also over the composition of many articles of food. At the present time there is under consideration a Bill the effect of which would be to continue under certain proposed new sections of the Food and Drugs Act, the most useful of the Minister's war-time powers.

Before the start of the 1939 war there had already taken place a revolution, though a gradual one, in the sale of many kinds of foodstuffs. A higher proportion of the total population became concentrated in the towns, and a greater proportion of the town population's food had to be carried in some sort of container from the place of production to the place of consumption. In the "machine age" it was to be expected that more and more food would be wrapped, packed, cartoned, bottled or canned; and the purchaser had less and less opportunity of examining critically the appearance of food before purchasing it. Thus statements, describing foodstuffs on labels, assumed more and more importance. It was an offence against the Food and Drugs Act of 1938 (and its predecessors) to give with a foodstuff, at the time of sale, a label which falsely described that foodstuff. But the war-time regulations, still kept in force, make it an offence not only to sell but also to expose for sale an article of food with a false label.

An important part of the present Labelling of Food Order is Article 2 thereof, which contains provisions requiring the labelling of prepacked food with a statement as to its composition; and in particular lays down what the statement must contain. Paragraph (3) of the Article reads:—

"(3) The said statement must also specify—

- (a) in the case of a food consisting of one ingredient the appropriate designation of the ingredient;
- (b) in the case of a food made of two or more ingredients the common or usual name (if any) of the food and the appropriate designation of each ingredient, and, unless the quantity or proportion of each ingredient is specified, the ingredients shall be specified in the order of the proportion in which they were used, the ingredient used in the greatest proportion (by weight) being specified first:

Provided that—

- (i) it shall not be necessary to state that the food contains water;
- (ii) where a food contains an ingredient which is made from two or more constituents, the appropriate designations of those constituents shall be so specified and it shall not be necessary to specify the appropriate designation of that ingredient.

For the purposes of this paragraph, 'appropriate designation' means a name or description, being a specific and not a generic name or description, which shall indicate to a prospective purchaser the true nature of the ingredient or constituent to which it is applied."

Now, running alongside the special powers given to the Minister to enforce, through his inspectors and the Government Chemist, these labelling-of-food provisions, the Food and Drugs Authorities already in existence, through their Sampling Officers and Public Analysts, were named as enforcing officers and given powers almost identical with their powers under the Food and Drugs Act. However, to secure uniformity in the administration of labelling enforcement, the Minister was given certain overriding powers. No local Food and Drugs Authority may institute proceedings for a "labelling offence" without the previous consent of the Minister, who has declared that his consideration of applications for consent will be expedited so as to minimise interference with such proceedings if consent is given.

The effect of the Labelling of Food Order on the work of the public analyst is considerable. In the ordinary course of their duties, sampling officers procure samples of a large number of prepacked articles. If such samples are procured informally the public analyst sees the unopened package together with its label, and sees any statement of ingredients. He is thus presented with the task of examining the sample in relation to the statement, and of reporting any failure to comply with the Order. Where a sampling officer has occasion to procure

a formal sample (in which case he has to divide the contents into three parts, one of which is submitted to the public analyst) he must retain possession of the original container with its label, in case the necessity arises of producing it in court. When submitting a formal sample, therefore, sampling officers write on their labels a copy of any statement of ingredients, and in some cases offer the original label (on the article procured for sampling) to the public analyst for scrutiny.

The requirements as to labelling have already, I think inevitably, become very detailed and somewhat complex. To make the whole scheme workable, a number of exemptions from the labelling requirements have been made. For example, if a grocer weighs out a large number of half-pound portions of butter he need not label each one "butter." Bread and "flour confectionery" (cakes, pies, etc.) need not be accompanied by a statement of ingredients. Also in cases where statements are required, the items may be simplified by declaration under group names approved by the Order, such as "edible oil," "spices," and "colouring." In general, where the composition of a mixed article of food is laid down by a "Food Standards Order," that food is exempted from the requirements of declaration of ingredients. Food Standards Orders have been made by the Minister of Food fixing certain percentage compositions for the following articles: baking powder, self-raising flour, mustard, liquid coffee essence, salad cream, prepared suet, preserves and table-jellies.

To illustrate the kind of quantitative check which a public analyst may make on a statement of ingredients, suppose that the following statement was printed on a carton contained a ready-mixed "sweetened cake flour":—

Flour, sugar, edible fat, cornflour, semolina, baking powder, caraway seeds, flavouring, colouring.

Direct and precise analytical methods are available for finding the percentage of sugar and fat. Also there is a standard for baking powder which must contain not less than 8 per cent. of available carbon dioxide and not more than $1\frac{1}{2}$ per cent. of residual carbon dioxide. Thus the irreducible minimum percentage of total carbon dioxide in a standard baking powder is 8 per cent. But in practice many genuine baking-powders are found to contain as much as 16 per cent. of available carbon dioxide. The percentage of baking-powder can thus be estimated only within limits. Further, the caraway seeds could actually be picked out and recognised as such from their botanical characteristics, and also their proportion could be found by weight. And, in addition, the sample could be examined microscopically with three aims; first to recognise those ingredients named in the statement; second, to form an opinion as to whether they may be present roughly in a proportion compatible with the order of the stated ingredients; and third, to observe whether ingredients are visibly present which are not named in the statement.

Assuming that the figures of analysis were as follows: sugar, 31 per cent.; fat, 13 per cent.; carbon dioxide, 0·8 per cent.; caraway seeds, 4 per cent. As indicated above, the percentage of carbon dioxide could be accounted for by the presence of as much as 10 per cent. of baking-powder in the sample, but it could also be derived from as little as 5 per cent. baking-powder. Caraway seeds contain 10 to 20 per cent. of fixed oil and could account for, say, $\frac{1}{2}$ per cent. out of the 13 per cent. "fat" found by analysis. Traces of oil naturally present in flour and semolina might account for another $\frac{1}{4}$ to $\frac{1}{2}$ per cent. of the total. Thus we might take a round figure of 12 per cent. as the proportion of edible fat separately added to the mixture.

The information gained up to this point might be tabulated thus :—

| | Per cent. | |
|-----------------------|-----------|-----|
| Flour | — | (A) |
| Sugar | 30 | |
| Edible fat | 12 | |
| Cornflour | — | (B) |
| Semolina | — | (C) |
| Baking powder | 5 to 10 | |
| Caraway seeds | 4 | |
| Flavouring | — | (D) |
| Colouring | — | (E) |
| | 100 | |

Except in special circumstances, the percentages of flavouring and colouring matters are very small, and for all practical purposes (D) and (E) may be neglected. The table gives us the information that (if the statement is correct) (A) is greater than 30, (B) is greater than (C), and both (B) and (C) lie between 12 and 5.

For the purpose of the argument, we may tabulate side by side percentage compositions for the mixture, first on the supposition that there is 10 per cent. of baking-powder (see F below), and second that there is 5 per cent. (see G below).

| | (F) | (G) | (H) |
|-----------------------|------|-----|-----|
| Flour | 30+ | 30+ | 33 |
| Sugar | 30 | 30 | 30 |
| Edible fat | 12 | 12 | 12 |
| Cornflour | 10++ | 5++ | 9 |
| Semolina | 10+ | 5+ | 7 |
| Baking powder | 10 | 5 | 5 |
| Caraway seeds | 4 | 4 | 4 |
| | 106+ | 91+ | 100 |

Obviously (F) is impossible and (G) is possible. In (G) the 9 per cent. necessary to make the total up to 100 may be distributed (in some way not yet determined by analysis) among the flour, cornflour and semolina, for instance some such arrangement as (H) would be *possible*.

If the circumstances warrant it, a further check is possible by the very laborious and lengthy process of counting the cornflour grains under the microscope. By this means a percentage of maize starch lying between 5 and 10 could be checked with an accuracy of about 1 per cent.; that is to say, the method could probably distinguish between 7 per cent. and 8 per cent. maize starch and, much more certainly, between 7 per cent. and 9 per cent.

It is to be admitted at once that so far as it has gone in the above instance, the method illustrated has not fully accounted for the composition of the sample. What has been attempted is an example of the kind of numerical logic which has to be brought to bear on the checking of statements of ingredients, when these are made according to the requirements of the Labelling of Food Order. In some cases of compounded foodstuffs (e.g. vegetable sandwich-spread) the list of ingredients may be very long, and the number of ingredients capable of precise chemical measurement may be relatively small. The result is that in any particular case of importance sufficient to warrant the considerable expenditure of time, special methods of examination may have to be sought from published literature or devised in the laboratory. The task of checking statements is, of course, additional to the analysis of the samples for harmful ingredients or preservatives or in relation to any food-standard which may apply to its composition; and has become one of the major aspects of the work of the whole laboratory.

It seems certain that in the present labour-saving age, ready prepared food mixtures for a variety of purposes have come to stay. In these conditions the Labelling of Food Order is serving a useful purpose, but of course the usefulness of the Order depends upon the vigilance of those whose duty it is to enforce the various provisions. Though the Order requires the statement of particulars to be "conspicuous" as well as "true," no specific requirement is laid down as to the size of the printing, and no guidance is given as to what would be regarded as satisfactory. On some labels the ingredients are mentioned in order, but the statement is unobtrusively included in a sentence setting forth the general excellence of the article, or in what might be called a manufacturer's "puff." In other cases the necessary statement is on a separate label (as on the neck of some sauce bottles) or on the end of a rectangular carton, or printed on the lid of a tin, and, while readily legible, is likely to pass unnoticed. It appears to me that it would add to the effectiveness of the Order if provisions were included governing the position and minimum size of the statement of ingredients.

Ice Cream.

At the beginning of the year the composition of ice cream was regulated by the Ministry of Food's scheme, which only allowed allocations of fat and sugar to makers of ice cream on condition that they undertook to maintain a fat percentage of not less than two and a half.

The Food Standards (Ice Cream) Order, 1951, came into operation on the 1st of March. This marked an important step forward, and coupled with other Orders regulating the hygienic precautions to be observed in ice cream factories, has already led to a very great improvement in the quality of ice cream generally. Six private samples were submitted before the Order came into force, but were examined (by request) in relation to the requirements of the new Order.

The new Order regulates the composition of ice cream in the following manner :—The product must contain not less than 5 per cent. fat, 10 per cent. sugar and $7\frac{1}{2}$ per cent. milk solids other than fat. Of the 10 per cent. sugar not less than three-quarters (i.e. $7\frac{1}{2}$ per cent of the ice cream) must be sucrose (cane or beet sugar).

Of the 35 samples examined during the year, only one was found to contain less than 5 per cent. of fat, viz. 4·7 per cent. (See table 6). None of the samples contained less than 10 per cent. of sucrose, the figures ranging from 10·4 to 18·2 per cent.

TABLE 6.

Fat in Ice Cream.

| <i>Percentage of Fat</i> | | | | | <i>Number of Samples</i> |
|--------------------------|----|----|----|----|--------------------------|
| 2·5 to 4·9 | .. | .. | .. | .. | 1 |
| 5·0 to 7·4 | .. | .. | .. | .. | 5 |
| 7·5 to 9·9 | .. | .. | .. | .. | 16 |
| 10·0 to 12·4 | .. | .. | .. | .. | 10 |
| 12·5 and over | .. | .. | .. | .. | 3 |

Drinking Water.

Samples of drinking water analysed in this laboratory are submitted to comprehensive physical, chemical and microscopical examination in order to determine their wholesomeness from a chemical standpoint. In most instances, corresponding bacteriological examinations have been made at the Regional Public Health Laboratory, and information has been exchanged between the two laboratories, with the aim of supplying a general hygienic assessment of the quality of water supplies.

Routine samples of water are taken from representative districts of the City, and any complaints made to the Health Department are investigated. Samples may be for the purpose of reinvestigating previous complaints, supervision of a suspected source of supply (as in the case of the spring waters, see below) or merely precautionary examination of drinking supplies.

As the following table shows, of the 50 samples examined during the year, 16 were the results of complaints of "dirty water," "sediment" or "insects." Four of these complaints were deemed to have been justified, and 9 justified in some degree by the results of the analysis.

The two samples of rain water were taken from taps in wash-basins in a school in Cheshire (administered by the Manchester Education Department) and were condemned as unfit for drinking because of their lead-content, the lead being derived from collecting-tanks on the roof.

Of the 27 routine samples examined, 2 had an abnormally high number of water-fleas present.

By mutual arrangement with the Manchester Waterworks Laboratory some samples were examined in both laboratories, for the purpose of verifying recently published methods of water analysis.

TABLE 7.

Number of Water Samples Examined.

| | | | | | | | | |
|------------------------------------|----|----|----|----|----|----|----|-----------------------------------|
| Routine tap waters | .. | .. | .. | .. | .. | .. | 25 | (including 1 artesian bore water) |
| Routine spring waters | .. | .. | .. | .. | .. | .. | 4 | |
| Complaint samples | .. | .. | .. | .. | .. | .. | 16 | |
| Other samples : | | | | | | | | |
| Rain waters | .. | .. | .. | .. | .. | .. | 2 | } 5 |
| Analysis checks with M.C.W.W. Lab. | .. | .. | .. | .. | .. | .. | 3 | |
| Total number of samples | | | | | | | | 50 |

Rag Flock.

Until November 1st, 1951, the Rag Flock Act of 1911 was in force.

The standard of cleanliness laid down under that Act was that rag flock should contain not more than 30 parts per 100,000 of soluble chlorine in the form of chlorides.

During the year 50 samples were submitted under the 1911 Act. Of these 50 samples, 3 samples slightly exceeded the limit for soluble chlorine, containing respectively 33, 33 and 31 parts per 100,000. One sample contained 78 parts of soluble chlorine per 100,000, and thus seriously failed to comply with the standard of cleanliness. The average "chlorine" content of the 50 samples was 15 parts per 100,000 of soluble chlorine in the form of chlorides.

Samples Submitted by Various Sections of the Health Department.

(a) Investigation of suspected food poisoning, outbreaks or individual cases. The possibility of irritant chemical substances in food as a cause of illness was eliminated by analysis of samples, including :—

1 herrings in vinegar, 2 canned fruits, 2 metallic food containers.

(b) Investigation of complaints. Foreign particles present in a bottle of milk (contents partly used and residue clotted) were identified as cooked minced meat crumbs, and boiled onion.

(c) Examination of “joke-sweets ” with a view to providing information to enable the Medical Officer of Health to discuss with the Port Health Authority the admission of a consignment intended for sale in the City. The specimens included chocolates, palatable externally, whose fillings contained sawdust, powdered cork, and in some cases “ liqueur ” centres having weak vinegar or mustard sauce in an internal paraffin wax container. Other specimens were : boiled sweets in fancy wrappings, palatable at first but flavoured in the centre with salt or pepper. As a result of the examination of the specimens the opinion was expressed that the joke-sweets appeared to have been made with some caution so that the victim, though getting something unexpected, was unlikely to suffer any harm.

(d) At the request of the Medical Officer of Health, a special examination was made of 4 “ pepper substitutes ” actually in use in certain institutions administered by the Health Department. Two were called “ pepper compound ” and 2 “ pepper-flavoured compound ” ; and typical analytical results are given below :—

| | <i>“Pepper Compound”</i> | <i>“Pepper-flavoured Compound”</i> |
|---|--------------------------|------------------------------------|
| | Per cent. | Per cent. |
| Moisture | 10·3 | 8·2 |
| Ash | 2·0 | 2·3 |
| Alcohol extract | 1·70 | 2·50 |
| Ether extract | 1·16 | 1·86 |
| Nitrogen (N) in ether extract | 0·012 | 0·036 |
| Piperine calculated from nitrogen in ether extract | 0·24 | 0·74 |
| Total pepper by quantitative microscopic examination, approx. | 5 | 12 |
| Specks | Black pepper particles | Black pepper particles |
| Colour of sample | Buff | Buff with orange tint |
| Artificially coloured starch | Absent | Present (wheat) |
| Physiological test for extract of capsicum (“ red pepper ”) | Positive | Negative |
| Wheat rusk, by difference (about) | 95 | 88 |

The basic ingredient in each case consisted of powdered “ rusk,” prepared from dried and powdered bread crumbs (or rusk biscuit) and sifted to a moderate degree of fineness. The samples had an attractive speckled appearance due to the inclusion of a proportion of black pepper. The aroma was pepper-like, fainter in the “ pepper compound ” and stronger in “ pepper-flavoured compound,” The flavour was mild in the “ pepper-flavoured compound ” but distinctly “ hot ” in the “ pepper compound,” in which a minute trace of extract of capsicum was, in my opinion, present though the quantity was too small for confirmation by chemical analysis. In view of the scarcity of pepper the composition and usefulness of the samples represented reasonably good value.

Samples Submitted by other Corporation Departments.

(a) Parks Department. 7 samples of fertilisers and feeding-stuffs were examined, 5 being informal and 2 formal. Of the 5 informal samples, 1 was a completely satisfactory compound fertiliser, 1 was a satisfactory sample of ammonium sulphate which should, however, have been accompanied by a statutory statement, and 1 was a steamed bone meal having more phosphoric acid than the statement declared. The remaining 2 informal samples consisted of a meat and bone meal fertiliser with a grossly unsatisfactory statement, and a fish-meal feeding-stuff deficient in oil and phosphoric acid. The two formal samples consisted of 1 meat and bone meal fertiliser somewhat deficient in phosphoric acid, and 1 fish fertiliser containing more phosphoric acid than was declared.

(b) Fire Brigade. 5 samples of "granules" used in a form of closed-circuit breathing apparatus as absorbents of carbon dioxide, were examined after varying periods of use in order to determine their active life under training conditions, while yet providing an ample margin of safety.

(c) Markets Department. 2 cans of imported greengages were examined from a stock containing a proportion of "blown" cans. A metallic flavour in 1 can, attributed to iron found to be present on analysis, was deemed to be caused by solution of metal by the fruit juice along the line of the "seam" where the tin coating of the can had been "stripped."

Samples from Other Sources.

(a) Port of Manchester Health Authority. 17 samples of imported foodstuffs have been examined, and these may be classified according to the main purpose of the analysis as follows : for preservatives 4, for prohibited colouring matters 3, for metallic impurities 10.

(b) Hospital Management Committees. A tablet, similar to some suspected of causing severe poisoning in an infant, was verified as a sugar-coated ferrous sulphate tablet. A sample of "Mixture of Iron and Ammonium Citrate for Infants" was found to agree with the formula in the British Pharmaceutical Codex. A sample of "white Windsor" bar-soap was analysed for comparison with the specification, with which it complied for all practical purposes. 6 physiological specimens were examined for lead in connection with 2 unusual instances of suspected lead poisoning, 1 in an infant of 2 years, and 1 in a mentally retarded case.

(c) Telephone Engineer. Electrolyte and certain lead parts of storage batteries were tested for traces of copper suspected of causing loss of storage capacity.

(d) A firm of brewers submitted 4 samples of beer to be examined for very small amounts of lead.

(e) Private persons submitted the following specimens thought to have caused harm, but found on analysis to be of normal composition : 2 samples of sugar, 1 dispensed medicine, 1 sample of $\frac{1}{2}$ grain phenobarbitone tablets.

Chemical Examinations for H.M. Coroner.

The Coroners (Amendment) Act, 1926, empowers the Coroner to request "any person whom he considers to possess special qualifications" to make a special examination by way of analysis of such parts or contents of the body or such other substances as ought to be submitted to analysis.

At the request of the Manchester City Coroner, human organs or their contents, together in some cases with related exhibits, have been examined in connection with inquests on 5 persons, involving the analysis of some 26 specimens and exhibits.

Significant amounts of poisons (namely salicylates) were found in 1 instance; and in another the finding of traces of barbiturates was regarded as material evidence in the special circumstances of the case. In the other cases the negative results of the analysis eliminated certain possibilities, and thus assisted in arriving at the causes of death.

Measurement of Atmospheric Pollution.

The investigation of atmospheric pollution is undertaken in collaboration with the "Atmospheric Pollution Research" branch of the Department of Scientific and Industrial Research.

In connection with this work, daily measurements of the sulphur dioxide content and of the smoke content of the external atmosphere at the laboratory are made by the volumetric method. Daily averages, calculated by monthly stages for the year and for the two preceding years, are given in Table 8.

The laboratory is also responsible for the monthly collection and analysis of the atmospheric deposit at 7 points in the Manchester area and at 1 point for comparison in a country area to the south. The detailed chemical examination of the deposited matter includes the measurement of tarry matter and mineral matter present in the insoluble deposit. The soluble matter is subjected to further examination to ascertain the amounts of chlorides, of sulphate and of calcium. Sulphur dioxide pollution of the air is measured at 3 points by the gravimetric method, using absorption "candles" exposed at these points.

The Department of Scientific and Industrial Research publishes and circulates monthly the "Atmospheric Pollution Bulletin," in which are collected results supplied by all co-operating bodies. Thus results obtained in Manchester may be compared with those from any other place from which returns are made. At intervals of several years, inclusive reports are issued by the Department of Scientific and Industrial Research and general trends are analysed and discussed.

TABLE 8.

VOLUMETRIC APPARATUS FOR SULPHUR DIOXIDE AND SMOKE.
Rusholme.

| | Sulphur dioxide | | | Smoke | | |
|--|-------------------|-------|-------|----------------------------|-------|-------|
| | Parts per million | | | Milligrams per cubic meter | | |
| | 1951 | 1950 | 1949 | 1951 | 1950 | 1949 |
| January | 0.144 | 0.164 | 0.199 | 0.368 | 0.353 | 0.262 |
| February | 0.086 | 0.118 | 0.205 | 0.230 | 0.264 | 0.211 |
| March | 0.120 | 0.116 | 0.237 | 0.302 | 0.289 | 0.279 |
| April | 0.062 | 0.082 | 0.147 | 0.228 | 0.277 | 0.164 |
| May | 0.042 | 0.073 | 0.144 | 0.209 | 0.200 | 0.186 |
| June | 0.028 | 0.043 | 0.121 | 0.171 | 0.115 | 0.136 |
| July | 0.039 | 0.047 | 0.110 | 0.158 | 0.152 | 0.112 |
| August | 0.046 | 0.035 | 0.084 | 0.164 | 0.180 | 0.169 |
| September | 0.062 | 0.052 | 0.096 | 0.213 | 0.275 | 0.162 |
| October | 0.092 | 0.078 | 0.074 | 0.319 | 0.315 | 0.236 |
| November | 0.101 | 0.165 | 0.145 | 0.214 | 0.525 | 0.237 |
| December | 0.113 | 0.211 | 0.125 | 0.290 | 0.567 | 0.236 |
| Average daily figure over all year .. | 0.08 | 0.10 | 0.14 | 0.24 | 0.29 | 0.20 |

The highest daily figure for the sulphur dioxide content of the atmosphere was obtained on January 4th, when 0.328 parts per million were reported, and the corresponding lowest figure was 0.012 on June 15th.

The highest daily figure for smoke content, namely 1.023 milligrams per cubic metre, was obtained on January 6th; and the lowest concentration of smoke, observed on July 8th, was 0.037 milligrams per cubic metre.

MANCHESTER AND DISTRICT REGIONAL SMOKE ABATEMENT COMMITTEE.

By the Honorary Secretary, C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law.

Report for the Year ending 31st March, 1952.

The Manchester and District Regional Smoke Abatement Committee is an advisory organisation of 83 local authorities in South Lancashire and North Cheshire, covering an area within approximately 15 miles radius of the City of Manchester. The Committee's assistance is available to member authorities for technical and other problems in connection with all forms of atmospheric pollution, and it operates in close co-operation with other regional smoke abatement committees and councils in the country. The Committee is also a member of the National Smoke Abatement Society, which is a voluntary organisation carrying on smoke abatement propaganda over a national field.

One additional local authority, the Borough of Heywood, became a member of the Committee during 1951, and there are now very few non-member authorities in the area.

A meeting of the Executive Committee was held in September, 1951, when an Audit Sub-Committee was appointed and progress as to various schemes for investigation of atmospheric pollution was approved. The Committee agreed to certain financial support for the Department of Scientific and Industrial Research and also dealt with matters relating to the Royal Sanitary Institute's Smoke Inspector's examination, post-certificate courses, and a proposed joint meeting with other committees.

Meetings of special committees concerning the investigation of atmospheric pollution were held in June, July, October, November, December, 1951, and in February, 1952.

A number of enquiries and requests for technical assistance were received and dealt with by the Committee's officers during the year, particularly with regard to grit emissions, industrial dusts, and smoke nuisances generally.

In October, 1951, the Assistant Secretary of the Committee, Mr. C. A. Hay, M.B.E., was a member of a delegation of representatives to the Ministry of Local Government and Planning, which included the Boroughs of Eccles, Sale, and Stretford, and the Urban District of Urmston, to press for the appointment of an additional inspector of Alkali, etc., Works for the North-West region, to be centred on Manchester.

The delegation was concerned with the fact that the existing inspector for the area has to operate from Liverpool, though there is a large and increasing number of processes which are potential and even active sources of effluvium nuisance in South-East Lancashire, near to the Manchester district. The delegation supported the representations with technical evidence, and as a result of the meeting and of the interest of the Member for the Stretford Parliamentary Division, the Minister has agreed to the appointment of another inspector. This important step should be of material assistance in preventing nuisances from the various processes where action is not readily available to local authorities in the area, particularly as regards recent industrial development.

The Chairman, Alderman T. M. Larrad, J.P. (Manchester C.B.) and the Assistant Secretary of the Committee attended a meeting at the offices of the Royal Sanitary Institute in February, 1952, to discuss with the Institute's representatives the question of the revision of the regulations and syllabus for the Smoke Inspectors examination. Representatives also attended by arrangement, from the Midlands Joint Advisory Council, the Bristol and District Regional Smoke Abatement Council, London and Home Counties Smoke Abatement Advisory Council, West Riding of Yorkshire Smoke Abatement Committee and the Sanitary Inspectors' Association. Detailed consideration was given at the meeting to a joint memorandum which had been submitted to the Royal Sanitary Institute on the need for a radical change in the standards of training and examination for the smoke inspector's certificate, with emphasis on modern trends and the engineering aspects. The Council of the Institute decided to defer consideration of this matter until the possibility of a practical examination has been investigated jointly by the various regional smoke abatement committees and further suggestions are submitted. This matter is receiving the necessary attention.

In November, 1950, the Committee afforded facilities in Manchester for a physicist of the Pathological Department, St. Bartholomew's Hospital, London, to estimate radioactive material in the atmosphere, the work being sponsored by the Medical Research Council, the British Empire Cancer Campaign and the Anna Fuller Fund. 43 samples were taken on 14 days at a height of 8 feet from the ground in a building in the City centre, and the activity of radon in air samples was measured by a Geiger counter. Samples were also taken at St. Bartholomew's Hospital, in Rothamstead and in Chiswick.

A full account of the investigation was published by the research worker concerned, Mr. K. B. Dawson, in "The British Journal of Cancer," 1952, vol. VI, page 22. The author concludes that the observed amounts of radioactivity showed no considerable differences between urban and rural districts, but there were large day-to-day variations, which in situations out of doors were affected by the wind, activity being greater the more stationary the air. In closed places the amounts of activity were many times greater, but even then were small in comparison with the lowest amounts considered harmful to man.

Reference was made in the previous year's report to an investigation on the effects of pollution on the growth of plants, which is being conducted by the Manchester University Department of Botany in conjunction with the Manchester and District Regional Smoke Abatement Committee. This work was continued during 1951-52 and already indicates important and promising results, as shown in an interim report published by the investigator concerned, Mr. J. K. A. Bleasdale, of the Department of Botany, in "Nature," vol. 169, page 376, March, 1952,

Considerable extensions took place during the year under review, of the Committee's work in the investigation of atmospheric pollution. Two joint schemes are in operation and in the first scheme, covering the Carrington-Partington area of industrial development, 4 additional local authorities agreed to participate and a further authority has the matter under consideration.

Similarly, 8 additional local authorities decided to take part in joint scheme No. 2, and another local authority has the matter under active consideration.

The area covered by joint scheme No. 1 is 115 square miles and the population is 260,000. The second joint scheme embraces an area of 140 square miles and a population of 656,000.

The number of local authorities throughout the country who are co-operating with the Department of Scientific and Industrial Research in installing apparatus continues to increase, and the particular interest of members of the Manchester and District Regional Smoke Abatement Committee in maintaining observations is shown by the following particulars :—

LOCAL AUTHORITIES MAINTAINING INDEPENDENT OBSERVATIONS.

| Local Authority | Type and Number of Apparatus | | | |
|--------------------------------|------------------------------|---------------|---------------|----------------------------|
| | Deposit Gauge | Lead Peroxide | Smoke Filters | Volumetric Sulphur Dioxide |
| Ashton-under-Lyne M.B.C. | — | 4 | — | — |
| Atherton U.D.C... .. | 2 | 2 | — | — |
| Bolton C.B.C. | 6 | — | — | — |
| Chorley M.B.C. | 1 | — | — | — |
| Leigh M.B.C. | 3 | 3 | — | — |
| Manchester C.B.C. | 8 | 3 | 1 | 1 |
| Saddleworth U.D.C. | 1 | 1 | 1 | — |
| Salford C.B.C. | 4 | 2 | 6 | 1 |
| Stockport C.B.C. | 3 | 2 | — | — |
| Warrington C.B.C. | 4 | 7 | 1 | 1 |
| Totals | 32 | 24 | 9 | 3 |

JOINT SCHEMES OPERATED BY MANCHESTER AND DISTRICT REGIONAL SMOKE ABATEMENT COMMITTEE

No. 1 Scheme—Carrington-Partington Area

| Local Authority | Type and Number of Apparatus | | | |
|----------------------------------|------------------------------|---------------|---------------|----------------------------|
| | Deposit Gauge | Lead Peroxide | Smoke Filters | Volumetric Sulphur Dioxide |
| *Altrincham M.B.C. | — | 2 | — | — |
| *Bowdon U.D.C. | — | 1 | — | — |
| Bucklow R.D.C. | 2 | 5 | — | — |
| *Eccles M.B.C. | 2 | 3 | — | — |
| *Hale U.D.C. | — | 1 | — | — |
| Irlam U.D.C. | 1 | 4 | — | — |
| Sale M.B.C. | 1 | 3 | — | — |
| Stretford M.B.C. | 1 | 4 | — | — |
| Urmston U.D.C. | 1 | 5 | — | — |
| Totals | 8 | 28 | — | — |
| <i>No. 2 Scheme.</i> | | | | |
| Audenshaw U.D.C. | — | 2 | | |
| Chadderton U.D.C. | — | 2 | | |
| Crompton U.D.C. | — | 2 | | |
| Denton U.D.C. | — | 2 | | |
| Droylsden U.D.C. | — | 1 | | |
| Dukinfield M.B.C. | — | 1 | | |
| Failsworth U.D.C. | — | 1 | | |
| *Farnworth M.B.C. | — | 2 | | |
| Hyde M.B.C. | — | 2 | | |
| Lees U.D.C. | — | 1 | | |
| *Limehurst R.D.C. | — | 1 | | |
| *Littleborough U.D.C. | — | 2 | | |
| *Little Lever U.D.C. | — | 1 | | |
| Middleton M.B.C. | — | 2 | | |
| *Milnrow U.D.C. | — | 1 | | |
| Mossley M.B.C. | — | 2 | | |
| Oldham C.B.C. | — | 5 | | |
| Prestwich M.B.C. | — | 2 | | |
| *Radcliffe M.B.C. | — | 2 | | |
| Rochdale C.B.C. | 3 | 3 | | |
| Royton U.D.C. | — | 2 | | |
| Stalybridge M.B.C. | — | 2 | | |
| Swinton and Pendlebury M.B.C. .. | — | 2 | | |
| Whitefield U.D.C. | — | 2 | | |
| *Whitworth U.D.C. | — | 1 | | |
| Totals | 3 | 46 | | |

* Additional apparatus to be installed.

The total number of apparatus maintained by or on behalf of 44 local authority members of Manchester and District Regional Smoke Abatement Committee is as follows :—

| | | | |
|------------------------|----|-------------------------------|----|
| Deposit gauges | 43 | Lead peroxide apparatus .. | 98 |
| Smoke filters. | 9 | Volumetric sulphur dioxide .. | 3 |

Of these, 11 deposit gauges and 74 lead peroxide apparatuses are maintained by the Committee on behalf of 34 local authorities.

The total number of apparatus maintained by local authorities throughout the country is :—

| | | | |
|---------------------------|-----|-------------------------------|-----|
| Deposit gauges | 453 | Lead peroxide apparatus .. | 510 |
| Smoke filters | 80 | Volumetric sulphur dioxide .. | 47 |
| Automatic filters | 8 | | |



INVESTIGATION OF ATMOSPHERIC POLLUTION.

Above, left—a standard deposit gauge, right—lead peroxide apparatus with louvred cover.

The number of apparatus maintained in the area of Manchester and District Regional Smoke Abatement Committee thus represents a considerable proportion of the total for the whole country.

It has been necessary to agree on revised financial formulae for recharging costs of the two joint investigations undertaken by the Committee and some 16 new sites for apparatus will need to be selected during 1952.

A photograph accompanying this report shows one of the Committee's typical sites and apparatus, comprising a standard deposit gauge and lead peroxide apparatus.

The tables which follow give a summary of observations on atmospheric pollution by the lead peroxide method, and show summer, winter and yearly means where possible.

As regards factors affecting sites and results, there is a well-known cycle of emission of sulphur dioxide during the year, the emission being less during the summer months than in the winter months. There are similar seasonal variations in the frequency of winds from different directions.

In the Carrington-Partington area, which is covered by joint scheme No. 1, the wind directions may be grouped conveniently into those coming from the comparatively clean areas Arc NW—S, and those from polluted Areas Arc N—SE.

From the month of May there is a sharp decline in the number of occasions when the wind is blowing from Arc N—SE and in the summer months pollution reaches its lowest amount in the area in August. When the average results from all stations in the area are plotted month by month against wind frequency and direction, it is seen that the curve for sulphur dioxide follows that of winds blowing from Arc N—SE.

From preliminary significance tests which have been applied to the figures concerned it may be observed that there was no radical change in pollution in the summer of 1951 compared with that of 1950. During the winter period of 1951–52 there was a tendency towards decreased pollution compared with the previous year, which may be attributed partly to wind direction and higher temperatures operating as favourable factors. When the yearly means are compared it is seen that there was no significant change in pollution in the area as a whole.

A significant decrease was noted at a site in Trafford Park, where it was known, however, that special local circumstances existed.

Observations on deposited matter by the use of deposit gauges have been continued at six sites, but insufficient information is so far available to enable any special conclusions to be drawn. During the period of observation there has been no difference in results per deposit gauge which would suggest any major change in the rate of emission of pollution in the area. When five years' results are available it is intended to make an extensive examination of the figures obtained, not only by the deposit gauge, but also by the lead peroxide method, in order to determine whether there have been trends or lasting changes in the monthly emissions of pollution.

Table No. 2 shows the results of observations on sulphur pollution in the various districts covered by the second joint scheme. Since these observations did not commence until June, 1951, there is insufficient data to make comparisons between successive seasonal periods for the year ending 31st March, 1952. The winter mean may be compared, however, with that obtained for the Carrington-

Partington area. Whilst it has been noted that in the Carrington area the curve for sulphur pollution closely follows that of wind direction and frequency from Arc N to SE, it is evident that quite different considerations apply in the area embraced by joint scheme No. 2.

This area is a conurbation of industrial districts reaching to the Pennines to the North-East, and the effect of winds on pollution appears to be complex and needing considerable study before conclusions may be drawn.

The Manchester and District Regional Smoke Abatement Committee has continued to maintain close contact with the Department of Scientific and Industrial Research as regards the investigation of atmospheric pollution and is represented on the Standing Conference of Co-operating Bodies.

Table 1. OBSERVATIONS OF SULPHUR DIOXIDE IN CARRINGTON AREA.
Sulphur dioxide expressed as mg. SO₃/day/100cm² Batch A PbO₂ (louvred cover).
S₅ = mean results May–September.
W₅ = mean results November–March
Y₁₂ = yearly mean.
“ D ” denotes significant decrease compared with previous year.
“ I ” denotes significant increase compared with previous year.

| Site | 1950—1951 | | | 1951—1952 | | |
|--|----------------|----------------|-----------------|----------------|----------------|-----------------|
| | S ₅ | W ₅ | Y ₁₂ | S ₅ | W ₅ | Y ₁₂ |
| BUCKLOW R.D.— | | | | | | |
| Carrington, Ackers Farm | 0.77 | 1.75 I | 1.26 | 0.80 | 1.56 | 1.18 |
| Carrington, Moss Hall Farm .. | 1.05 | 1.83 I | 1.41 | 0.89 D | 1.76 | 1.31 |
| Dunham Massey, Green Lane Farm | 0.74 | 1.47 | 1.08 | 0.63 D | 1.31 | 0.98 |
| Partington, Gas Works | 1.85 D | 4.30 I | 3.03 | 2.68 I | 3.52 D | 3.15 |
| Warburton, Bent Farm | 0.74 D | 1.38 I | 1.02 | 0.62D | 1.21 | 0.90 |
| ECCLES M.B.— | | | | | | |
| Barton Airport.. .. | 1.05 | 2.30 | 1.64 | 1.21 I | 1.99 | 1.59 |
| IRLAM U.D.— | | | | | | |
| Princess Park | 0.97 | 2.25 | 1.60 | 1.02 | 2.05 | 1.51 |
| Railway View Farm.. .. | 0.72 D | 1.90 | 1.30 | 0.86 I | 1.83 | 1.32 |
| Sewage Works | 0.88 D | 1.75 I | 1.30 | 0.95 | 1.62 | 1.27 |
| Cadishead, Woodside Farm .. | 0.59 D | 1.35 I | 0.95 | 0.56 | 1.15 | 0.85 |
| SALE M.B.— | | | | | | |
| Grammar School | 0.76 D | 2.19 I | 1.44 | 0.81 | 1.75 D | 1.30 |
| Highways Depot | 0.78 D | 2.07 | 1.42 | 0.82 | 1.98 | 1.38 |
| Sewage Works | 0.82 D | 2.02 I | 1.39 I | 0.90 | 1.91 | 1.38 |
| STRETFORD M.B. .. | | | | | | |
| Victoria Park | 0.99 D | 2.57 I | 1.76 | 0.94 | 2.17 D | 1.54 |
| Metrovick, West Works | 3.94 | 4.73 | 4.37 | 3.08 D | 5.00 | 3.96 |
| Metrovick, Mosley Road Works .. | 6.36 | 7.23 | 6.89 | 3.87 D | 7.43 | 5.38 D |
| URMSTON U.D.— | | | | | | |
| Bowfell Road | 0.94 D | 2.09 I | 1.50 | 0.96 | 1.90 | 1.40 |
| Irlam Road | 0.67 D | 1.69 | 1.17 | 0.66 | 1.46 | 1.06 |
| Davyhulme Sewage Works .. | 1.20 D | 2.74 | 1.95 | 1.36 | 2.50 | 1.92 |
| Westbourne Park | 1.03 D | 2.36 | 1.68 | 0.96 | 1.96 D | 1.45 |
| Barton Power Station | 1.45 D | 2.93 I | 2.18 D | 1.72 I | 2.50 D | 2.13 |
| Total significant increases or decreases | | | | | | |
| | 14 D | 11 I | 1 I 1 D | 5 D 4 I | 5 D | 1 D |

| | | | |
|--------------------------------------|--|-------------------------|----------------------|
| Wind direction and mean temperature— | | | |
| Period | | No. of occasions from : | |
| | | Arc N–SE | Arc NW–S |
| Summer, 1949 | | 171 | 388 |
| do. 1950 | | 126 | 457 |
| do 1951 | | 176 | 399 |
| Winter, 1949-50 | | 137 | 420 |
| do. 1950-51 | | 184 | 374 |
| do. 1951-52 | | 133 | 427 |
| Year 1949-50 | | 360 | 1,005 |
| do. 1950-51 | | 368 | 1,005 |
| do. 1951-52 | | 403 | 954 |
| | | | Mean Temperature °F. |
| | | | 59.8 |
| | | | 57.2 |
| | | | 56.5 |
| | | | 42.3 |
| | | | 37.8 |
| | | | 41.4 |
| | | | 50.6 |
| | | | 47.4 |
| | | | 48.6 |

TABLE 2. OBSERVATIONS OF SULPHUR DIOXIDE, JOINT SCHEME NO. 2.
Sulphur dioxide expressed as mg. SO₃/day/100 cm² Batch A. PbO₂ (louvred cover).

| Site | June 1951 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. 1952 | Feb. | Mar. | Winter Mean |
|--|--------------|------|------|-------|------|------|------|--------------|------|------|----------------|
| AUDENSHAW U.D.— Ryecroft Hall | — | — | 1.04 | 1.22 | 1.40 | 1.90 | 2.44 | 2.84 | 2.82 | 1.56 | 2.31 |
| CHADDERTON U.D.— Chadderton Hall | 1.24 | * | 1.17 | 1.66 | 2.01 | * | — | — | — | — | — |
| Grammar School | 1.41 | 1.51 | 1.62 | 1.67 | 2.60 | 3.20 | 3.85 | 3.45 | 2.76 | 2.45 | 3.14 |
| CROMPTON U.D.— Croft Bank | 0.85 | 0.80 | 0.91 | 1.20 | 1.59 | 2.00 | 2.76 | 1.98 | 2.06 | 1.62 | 2.08 |
| Home Farm | 1.49 | 1.57 | 1.43 | 2.01 | 2.06 | 2.60 | 3.43 | 1.87 | 2.40 | 1.88 | 2.42 |
| DENTON U.D.— Town Hall | — | — | 0.93 | 1.16 | 1.37 | 2.03 | 2.10 | 2.69 | 2.55 | 1.76 | 2.23 |
| Sewage Works | — | — | 0.64 | 0.97 | 1.11 | 1.60 | 1.67 | 2.14 | 2.12 | 1.28 | 1.76 |
| DROYLSDEN U.D.— Cemetery | — | — | 1.19 | 1.43 | 1.76 | 2.76 | 2.39 | 3.52 | 3.52 | 2.00 | 2.84 |
| DUKINFIELD M.B.— Dukinfield Park | — | — | 0.99 | 1.18 | 1.30 | 2.17 | 2.67 | 2.74 | 2.78 | 1.77 | 2.42 |
| FAILSWORTH U.D.— Highways Depot | 1.22 | 1.37 | 1.25 | 1.32 | 1.91 | 2.31 | 2.59 | 3.35 | 3.14 | 1.82 | 2.64 |
| HYDE M.B.— Corporation Yard | — | — | * | * | — | 1.94 | 1.90 | 2.37 | 2.63 | 1.53 | 2.07 |
| Reservoir | — | — | 0.83 | 1.13 | 1.28 | 1.96 | 1.90 | 2.57 | 2.75 | 1.45 | 2.13 |
| LEES U.D.— Cemetery | 0.70 | 0.84 | 0.81 | 0.95 | 1.24 | 1.75 | 1.80 | 2.32 | 2.45 | 1.37 | 2.00 |
| MIDDLETON M.B.— Town Hall | — | 0.81 | 0.86 | 1.14 | 1.43 | 2.05 | 2.21 | 2.54 | 1.83 | 1.77 | 2.08 |
| Thornham School | — | 1.21 | 1.45 | 1.61 | 2.13 | 2.65 | 2.58 | 2.35 | 2.29 | 1.99 | 2.37 |
| MOSSLEY M.B.— Town Hall | — | — | — | 0.86 | 1.28 | 1.40 | 1.76 | 1.81 | 2.08 | 1.25 | 1.66 |
| Lower Hey Farm.. . . . | — | — | — | 1.65 | 1.45 | 2.34 | 2.63 | 1.83 | 2.41 | 1.52 | 2.15 |
| OLDHAM C.B. Haven Lane Nursery .. . | 1.10 | 1.18 | 1.03 | 1.29 | 1.54 | 2.48 | 2.59 | 2.53 | 2.62 | 1.71 | 2.39 |
| Horsedge Street Nursery .. . | 1.53 | 1.88 | 1.94 | 2.43 | 2.53 | 3.58 | 4.43 | 3.33 | 4.24 | 3.11 | 3.74 |
| Westhulme Hospital | 1.34 | 1.46 | 1.82 | 1.85 | 2.22 | 2.95 | 3.56 | 3.67 | 3.29 | 2.21 | 3.14 |
| Westlands | 1.37 | 1.68 | 1.64 | 1.86 | 2.53 | 3.62 | 4.15 | 3.51 | 4.19 | 2.48 | 3.59 |
| Alexandra Park | 1.19 | 1.39 | 1.36 | 1.43 | 1.59 | 2.50 | 3.18 | 3.38 | 3.20 | 1.94 | 2.84 |
| PRESTWICH M.B.— Town's Yard | — | 1.15 | 1.35 | 1.79 | 2.26 | 2.61 | 3.27 | 2.76 | 2.88 | 2.12 | 2.73 |
| Sewage Works | — | 1.43 | 1.85 | 1.96 | 1.93 | 2.89 | 3.34 | 3.73 | 2.66 | 2.30 | 2.98 |
| ROYTON U.D.— Hanging Chadder Farm .. . | 1.31 | 1.04 | 1.60 | 1.26 | 2.48 | 2.66 | 3.60 | 1.79 | 2.77 | 2.09 | 2.58 |
| Royton Park | 1.08 | 1.14 | 1.25 | 1.59 | 1.93 | 2.60 | 3.42 | 2.39 | 2.47 | 2.16 | 2.61 |
| STALYBRIDGE M.B.— Market Ground | — | — | 1.14 | 1.45 | 1.87 | 2.29 | 2.63 | 2.83 | 3.25 | 1.69 | 2.54 |
| Oakfield | — | — | 1.12 | 1.39 | 1.42 | 2.12 | 2.48 | 3.28 | 2.58 | 1.50 | 2.39 |
| SWINTON AND PENDLEBURY M.B.— Moorside Park | 0.97 | 0.84 | 1.18 | 1.69 | 2.52 | 2.38 | 2.71 | 2.30 | 2.39 | 2.26 | 2.41 |
| Victoria Park | 1.23 | 1.00 | 1.28 | 1.68 | 2.31 | 2.84 | 3.42 | 3.03 | 2.96 | 2.42 | 2.93 |
| WHITEFIELD U.D.— Cricket Ground | — | 0.66 | 0.78 | 1.04 | 1.64 | 1.72 | 2.09 | 1.41 | 1.92 | 1.36 | 1.70 |
| Sewage Works | — | 1.07 | 1.35 | 1.51 | 1.66 | 2.37 | 2.53 | 2.25 | 2.35 | 1.60 | 2.22 |

* Cylinder stolen.

PREVENTION OF DAMAGE BY PESTS ACT, 1949.

By G. H. Adcock, Rodent Executive Officer.

General Administration.

The functions of the Corporation under the above Act are delegated to the Health Committee and are operated by the Rodent Executive Officer and a staff of rodent operatives.

The Act stipulates that it shall be the duty of every Local Authority to take such steps as may be necessary to secure as far as is practicable that their district is kept free from rats and mice and in particular from time to time carry out such inspections as may be necessary for the purpose aforesaid; with a further obligation to destroy rats and mice on land of which they are the occupier, and otherwise keep such land so far as is practicable free from rats and mice and to enforce the duties of owners and occupiers under the provisions laid down in the Act.

In accordance with the foregoing obligations, a continuous survey of the City is maintained; in addition all notifications by occupiers that their premises are infested are carefully investigated by competent rodent operatives. These notifications are obligatory under the Act and are of great assistance as they enable the investigators to locate sources of infestation and to give the advice necessary to secure appropriate remedial action.

The occupier retains the right to carry out destruction measures against rats or mice on his premises. This is mainly exercised in cases where there are very young children and where, from experience, it would be difficult to use poisons without the risk of accidents. Traps are loaned to occupiers and supervision is maintained by revisits from the operational staff until a clearance is effected.

The expression "infested" is an elastic term. In a good many notices in writing from the occupiers a single rat or mouse has been seen, but it cannot be said that rodents are living on or resorting to the land in "substantial numbers." Nevertheless these premises are infested, and require immediate action.

It becomes necessary, therefore, in recording infestations, to take into consideration certain factors, such as size and position, degree and duration of infestation, contributory causes, attraction and harbourage for rodents. Once these are established, infestations can be classified in their respective categories, which refer to the number of rodents, and not to the density of rat population for any particular land.

It may be stated that the term "land" includes land covered with water and any building or part of a building.

The organisation set up in the City deals with all aspects of Rodent Control and has the approval of the Ministry, whose technique and recommendations are closely followed.

The surveillance of Public Sewers as to rat infestation is delegated to the City Surveyor's Department, the work being carried out by a specially trained staff.

Complaints.

The Rodent Control Section of the Health Department is now widely known in the City, and it is pleasing to note that both owners and occupiers report the presence of rodents on their premises, whether in substantial numbers or not. It is all to the good that the public have become so "rodent-minded" as to report these conditions, even if they be of a trivial nature. This class of complaint is usually associated with mice, which are sometimes more difficult to clear up than rats owing to their different habits.

Every complaint, no matter how trivial, is thoroughly investigated and appropriate measures taken.

The following table indicates the number of new complaints dealt with by this Section during 1951, and the conditions found at all premises visited as a result of these complaints.

TABLE 1.

Premises Visited in Connection with Complaints, and Infestation Conditions Found.

Total number of new complaints dealt with, 1951 2,128

Premises Visited.

Number of business premises visited in connection with complaints.. 1,990

Number of dwelling-houses visited in connection with complaints .. 4,397

[illegible]

Conditions Found.

| | | | | | | | |
|---------------------------------------|----|----|----|----|----|----|-------|
| Number of premises found rat-infested | .. | .. | .. | .. | .. | .. | 1,404 |
|---------------------------------------|----|----|----|----|----|----|-------|

| | |
|---|-------|
| Number of premises found mouse-infested | 1,169 |
|---|-------|

| | | | | | | |
|--|----|----|----|----|----|-------|
| Total number of premises found rodent-infested | .. | .. | .. | .. | .. | 2,573 |
|--|----|----|----|----|----|-------|

[illegible]

Rat infestations may be external or internal. Some external infestation, due to the breakdown of the drainage system, in close proximity to the premises, is the cause of many internal infestations, particularly where burrowing takes place under the footings of dwelling-houses and structures of a similar nature, into floor spaces and under flagged floors of kitchens and sculleries. Internal infestations also occur where rats emerge from undermined surfaces of streets, passages and other land, and gain access to premises through structural defects.

The policy of the Section is to locate the source if at all possible. When this is achieved and dealt with the work of clearance becomes simplified.

Mice infestations present a different problem. They have no suspected or definite visible source as in the case of rats. They gain admission through unsuitable types or broken floor space ventilators and other minor structural defects, finding harbourage behind fixtures, skirting boards, backs of fireplaces, etc. They destroy household fabrics for nesting purposes and also destroy and contaminate stocks of food, unless they are protected in a proper manner.

TABLE 2.
Classification of Premises Visited in Response
to Complaints During 1951.

| Premises Rat-infested | | | | | | Premises Mouse-Infested | | Premises showing no Visible Evidence of Infestation | |
|---------------------------|-----------------|-------------------|-----------------|----------|-------|-------------------------|-----------------|---|-----------------|
| Internal | | External | | Category | | | | | |
| Business Premises | Dwelling-Houses | Business Premises | Dwelling-Houses | Major | Minor | Business Premises | Dwelling-Houses | Business Premises | Dwelling-Houses |
| 408 | 434 | 100 | 462 | — | 1,404 | 567 | 602 | 915 | 2,899 |
| 1,404 | | | | | | 1,169 | | 3,814 | |
| 6,387 (Total premises) | | | | | | | | | |

Nature of Premises Infested.

The following table classifies the different types of premises infested. It will be seen that dwelling-houses still constitute the largest single group of infested premises. No specific reasons can be advanced to account for these conditions in so far as rats are concerned, but the fact that dwelling-house property in the industrial and older parts of the City is frequently dilapidated, worn out or possesses serious structural defects may account for the conditions and be a supporting factor. A good many of the houses are beyond economic repair, which necessitates constant vigilance to keep infestation under control.

The ideal of food storage, whether in bulk or smaller quantities, in absolutely rat-proof premises or receptacles has not yet been achieved, but it is pleasing to note that some progress has been made in this respect, particularly in the better class of houses. A poor standard is often noticed where small stocks of food are stored in small shops and in smaller premises where food is prepared, stored or sold.

Factories, workplaces and offices collectively also form a large group, but mouse-infestation is due generally to careless disposal of waste food and food paper wrapping by employees. This is more apparent in the older type of business premises, where complete proofing against rodents is unobtainable. It is not uncommon for rodents to be brought into the premises in packages, hampers and sacks of foodstuffs.

The different types of infested premises are shown in the following table :—

TABLE 3.
Nature of Premises Infested.

| Type of Premises | Number Rat-Infested | | Number Mouse-Infested | No Evidence of Infestation | Totals |
|---|---------------------|----------|-----------------------|----------------------------|--------|
| | Internal | External | | | |
| Dwelling-houses | 434 | 462 | 602 | 2,899 | 4,397 |
| Factories, workshops, workplaces .. | 146 | 7 | 102 | 74 | 329 |
| Shops | 61 | 30 | 146 | 242 | 479 |
| Premises where food is prepared, sold, or stored | 30 | 7 | 56 | 207 | 300 |
| Warehouses | 55 | 8 | 52 | 119 | 234 |
| Offices | 12 | 1 | 94 | 202 | 309 |
| Restaurants, licensed premises, etc... | 28 | 1 | 20 | 11 | 60 |
| Hospitals, welfare centres, clubs, public institutions.. .. . | 22 | 8 | 30 | 15 | 75 |
| Schools | 17 | 6 | 49 | 18 | 90 |
| Churches, etc. | 1 | 1 | 1 | 3 | 6 |
| Garages, wooden structures | 23 | 10 | 2 | — | 35 |
| Farms, tips, brook courses | 3 | 11 | 1 | 21 | 36 |
| Parks, sports grounds, airports | 5 | 7 | 8 | 2 | 22 |
| Sewage disposal works, slaughter-houses | 3 | 2 | — | — | 5 |
| Cinemas, theatres | 2 | 1 | 6 | 1 | 10 |
| Totals | 842 | 562 | 1,169 | 3,814 | 6,387 |

TABLE 4.
Classification of Causes of Rat Infestation in Premises
Primarily Visited during 1951.

| Cause | Rat-Infestation | | | | Total Premises Rat-Infested | Percentage of Total Rat-Infestation | Premises Mouse-Infested |
|--|-------------------|-----------------|-------------------|-----------------|-----------------------------|-------------------------------------|-------------------------|
| | Internal | | External | | | | |
| | Business Premises | Dwelling-houses | Business Premises | Dwelling-houses | | | |
| Directly due to or associated with defective or disused drains, sewers | 30 | 86 | 26 | 166 | 308 | 21.93 | — |
| Nature of business in premises or vicinity | 65 | 25 | 15 | 14 | 119 | 8.47 | 311 |
| Tips, refuse dumps, market areas.. | 57 | 21 | 8 | 18 | 104 | 7.41 | 48 |
| Neglect in protecting food and food scraps, poultry kept.. .. | 54 | 51 | 7 | 44 | 156 | 11.11 | 461 |
| Dilapidated premises, defects in structure | 61 | 63 | 3 | 10 | 137 | 9.76 | 220 |
| Building operations, demolitions .. | 16 | 41 | 10 | 47 | 114 | 8.12 | 18 |
| Vicinity of open or culverted water-courses, railway sidings | 68 | 32 | 16 | 65 | 181 | 12.88 | 75 |
| Dilapidations on war-damaged sites | 1 | 2 | 1 | — | 4 | .28 | 1 |
| Casual infestation | 56 | 113 | 14 | 98 | 281 | 20.04 | 35 |
| Totals | 408 | 434 | 100 | 462 | 1,404 | 100.00 | 1169 |

The above table classifies the different factors responsible for infestation. In the case of rat infestation it will be seen that the largest group is associated with defective drains or sewers. This is established by tracing burrowing and undermined surfaces to their sources. The Department has the full co-operation of the City Surveyor's Department in this class of work, where it occurs in the public streets and passages, and they remedy any defects which are found to be the responsibility of the Local Authority. Owners are charged, should the defect be of a private nature. Many classes of defect are disclosed which, when remedied, clear up local infestation.

The following table analyses drainage condition found and action taken.

TABLE 5.
Tracing of Rat Burrows in relation to Drainage Infestation.

| Conditions found and action taken as a result of 178 Examinations as follows: | By City Surveyor | By Owners and Occupiers | By Drainage and Sanitary Sections | Totals |
|--|------------------|-------------------------|-----------------------------------|--------|
| Number of examinations made | 128 | 33 | 17 | 178 |
| Minor defects in sewers repaired | 42 | — | — | 42 |
| Disused privy midden drains removed | 8 | — | 17 | 25 |
| Other disused drains or sewers removed or otherwise dealt with.. .. . | 21 | 5 | 8 | 34 |
| Defective drains remedied by owner or dealt with by Sanitary Section | — | 11 | 16 | 27 |
| Outward burrows consolidated | 22 | 1 | 1 | 24 |
| Outlet drains repaired by Corporation on owner's signed order | 4 | — | — | 4 |
| Surface burrows consolidated | 7 | 8 | — | 15 |
| Undermining due to causes other than rats .. | 17 | 9 | 3 | 29 |
| Defective sewers and drains repaired by Corporation at owner's expense | — | — | 10 | 10 |
| Street drain inlets repaired | 2 | — | — | 2 |
| Totals | 123 | 34 | 55 | 212 |

Rodent Control Survey.

The Local Authority, in order to comply with the Act, has a duty to perform by taking such steps as may be necessary from time to time, to secure as far as practicable that the area under their control is kept free from rats and mice. Concurrent with carrying out the necessary baiting programme at business premises and dwelling-houses, and investigating notifications from the public, a survey or search is maintained to discover infestations. There may be no visible evidence of rodent infestation at the time of the visit, but it does bring to the public notice their obligations under the Act. Where infestations are discovered the appropriate action is taken, either by advice where occupiers choose to carry out their own destruction measures or by the Corporation doing the work free of cost in the case of dwelling-houses, or levying the full charge of the service in the case of business premises.

The following table shows the result of the Survey in several wards of the City.

TABLE 6.

| Ward | Total Premises | Infestation found | | | |
|----------------------|-------------------|----------------------|---------------------|----------------------|---------------------|
| | | Rats | | Mice | |
| | | Business Premises | Dwelling- houses | Business Premises | Dwelling- houses |
| Ardwick | 6,222 | 3 | — | 3 | — |
| Didsbury | 5,247 | 1 | 23 | 2 | 15 |
| Levenshulme | 6,348 | 3 | 1 | 4 | 2 |
| Lightbowne | 5,334 | 1 | 1 | 2 | 8 |
| Newton Heath | 5,750 | 1 | 3 | — | 19 |
| Totals | 28,901 | 9 | 28 | 11 | 44 |

Destruction Measures by Corporation Service.

Destruction measures are carried out at all classes of premises. Occupiers of business premises readily co-operate in this work by requesting the service of the Corporation, and undertaking to pay the full cost of the service. In the cases of dwelling-houses many trivial complaints are made by occupiers, usually associated with mouse infestation, and advice is given of the necessary measures to be taken. These infestations generally clear up under supervision but may require several revisits. It is necessary in some households to advise that trapping be carried out, as potent poisons cannot be used where there are young children in the house.

During 1951 2,068 treatments were carried out.

- 1,982 of these were carried out by means of poison.
- 58 by a combination of poisoning and trapping.
- 27 by trapping alone.
- 1 by gassing.

The following figures indicate the number of treatments carried out and number of premises cleared of rodents.

TABLE 7.

| Type of Premises | Treatments for Rat Infestation | Treatments for Mouse Infestation | Number of Premises Cleared of | |
|--------------------------------|--------------------------------------|--|----------------------------------|------|
| | | | Rats | Mice |
| Local Authority property | 75 | 245 | 15 | 40 |
| Business premises | 520 | 592 | 246 | 182 |
| Dwelling-houses | 234 | 354 | 156 | 198 |
| Hospitals | 22 | 20 | 1 | 1 |
| Agricultural property.. .. . | 6 | — | 2 | — |
| Totals | 857 | 1,211 | 420 | 421 |
| | 2,068 | | 841 | |

It will be seen that due to 2,068 treatments, 841 premises were cleared of rodents (40.66 per cent.).

In the course of these operations 175,322 baits were laid.

34,832 of these were poison baits, of which 17,251 (49.5 per cent.) were taken.

| | |
|--|--------|
| Number of dead rats picked up | 1,652 |
| Number of dead mice picked up | 3,554 |
| Estimated kill (Ministry calculation on take of poison bait) | 32,724 |

857 premises were treated for rat infestation, of which 420 (49 per cent.) were subsequently cleared.

1,211 premises were treated for mouse infestation, of which 421 (34.7 per cent.) were cleared.

Destruction Measures by Private Operating Companies.

Rodent destruction measures carried out by private operating companies and other individuals on a contract basis with owners and occupiers cannot always be checked or supervised, due to the fact that it is not always known where the work is being done ; it is not compulsory for this class of work to be notified to the Local Authority. Questionnaires are sent out requesting a report of their activities in the City. Not all the questionnaires are returned, but one company reports having laid 196,100 rat baits and 810,650 mouse baits. In this case there is no record of the number of baits taken or other information to assess the value of the operations. Some success must be achieved, and no doubt it contributes in some degree in the work of rodent repression.

Another company reports having destroyed 120 rats and 370 mice, requiring 14,000 poison baits, of which 1,500 were taken.

These operations, combined with the many cases of occupiers and owners who carry out their own measures after being given advice, and of which there is no record of results, constitute an additional force arrayed against rodents, which is all to the good.

Revisits.

In all cases of infestation, where treatment has been carried out, it is necessary after post-baiting to check the efficiency of the work. In some cases further treatment is necessary. Revisits are therefore made until such time as there is no evidence of bait taken or other visible signs of infestation, when the case is filed as being clear.

During the year, 2,077 such revisits were made, with a clearance of 841 premises, as previously mentioned.

These revisits do not include visits to premises for the purpose of carrying out the necessary baiting programme.

2,068 treatments were carried out, each treatment requiring on an average five visits per treatment, with a total of 10,540 such visits.

Destruction Measures Undertaken by other Corporation Departments and Nationalised Undertakings.

These measures are carried out as maintenance treatments in public service properties of the Corporation, some of which are always open to infestation, owing to the character of the land and the nature of business carried on. Nationalised undertakings also co-operate in the work of rodent control.

From various Departments and nationalised undertakings it is reported that 528 rats and numerous mice were destroyed during 1951, mostly by poisoning, some with a combination of poison and traps.

Extermination of Rats in Public Sewers.

The maintenance treatment of the public sewers is carried out by the special staff of the City Surveyor's Department, who undertake a baiting schedule laid down by the Ministry. The following table shows the work done in this phase of rodent control.

TABLE 8.

| Treatment | Number of manholes test-baited | Number of manholes baited | Number of manholes showing bait takes |
|--|--------------------------------|---------------------------|---------------------------------------|
| Balance of initial treatment No. 2 maintenance | — | 1,214 | 191 |
| No. 1 Maintenance treatment .. | 1,608 | 7,183 | 1,170 |
| No. 2 Maintenance treatment .. | — | 4,463 | 732 |
| Totals | 1,608 | 12,860 | 2,093 |

REPORT FROM MARKETS DEPARTMENT ON SUPERVISION OF MEAT AND OTHER FOODS.

The Medical Officer of Health is indebted to the General Manager of the Markets Department for the following particulars relating to the operations of the department during the year ended 31st March, 1951.

The number of animals slaughtered at the city abattoir during certain years is shown in subjoined statement "A."

The bulk of the meat, fish, and fruit which is condemned is found to be unfit for food on arrival at the markets, railway stations, and wholesale houses. An efficient system of inspection at the centre of distribution lessens the risk of diseased meat, etc., being exposed for sale in retail shops.

The staff of inspectors comprises 1 chief veterinary inspector, 3 assistant veterinary inspectors, and 10 meat, fish, etc., inspectors.

Statement "B" shows the total condemnations in the city and statement "C" the total weight of meat condemned at the city abattoir and wholesale meat market.

Statement "A."

Animals Slaughtered at City Abattoir during certain Years.

| Year ended 31st March | Cattle | Sheep and Lambs | Calves | Pigs | Goats |
|--------------------------|--------|--------------------|--------|-------|-------|
| 1942 | 34,206 | 134,936 | 17,822 | 5,163 | — |
| 1943 | 38,127 | 188,523 | 41,752 | 2,404 | — |
| 1944 | 39,951 | 171,076 | 29,181 | 1,512 | — |
| 1945 | 42,927 | 172,276 | 18,305 | 1,477 | — |
| 1946 | 61,387 | 168,152 | 34,881 | 1,705 | — |
| 1947 | 64,061 | 233,675 | 46,701 | 1,385 | — |
| 1948 | 75,051 | 179,350 | 34,246 | 752 | — |
| 1949 | 58,645 | 208,725 | 39,447 | 2,659 | 1,223 |
| 1950 | 72,449 | 209,048 | 44,170 | 3,058 | 2,674 |
| 1951 | 80,852 | 216,399 | 52,259 | 6,403 | 4,273 |

Statement " B."

Total Condemnation of various Foodstuffs during 1940-50.

| Kind of Food | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
|-------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | tons | tons | tons | tons | tons | tons | tons | tons | tons | tons |
| Meat | 423 ³ / ₄ | 547 | 542 | 697 | 774 ¹ / ₄ | 821 | 852 ¹ / ₄ | 808 | 978 | 954 ³ / ₄ |
| Fish | 176 ³ / ₄ | 163 ³ / ₄ | 112 ¹ / ₄ | 183 | 168 ¹ / ₂ | 190 | 387 ¹ / ₄ | 284 | 316 ³ / ₄ | 160 |
| Fruit | 19 | 18 ¹ / ₄ | 15 ¹ / ₂ | 28 ³ / ₄ | 10 ¹ / ₄ | 26 ¹ / ₂ | 144 ¹ / ₂ | 80 | 136 | 83 ³ / ₄ |
| Vegetables | 313 ³ / ₄ | 183 ³ / ₄ | 100 | 366 ¹ / ₂ | 206 | 127 | 326 ¹ / ₂ | 131 ³ / ₄ | 162 ¹ / ₂ | 109 ¹ / ₂ |
| Eggs (number) .. | 49,299 | 575 | 1,200 | 120 | 718 | 384 | 946 | 40 | 640 | 1,614 |
| Game (head) .. | 607 | 976 | 165 | 728 | 1,079 | 223 | 156 | 524 | 1,835 | 675 |
| Poultry (head) .. | 10,350 | 8,102 | 5,756 | 8,429 | 3,855 | 5,129 | 2,812 | 6,465 | 15,043 | 7,419 |
| Rabbits (head) .. | 22,145 | 7,923 | 5,116 | 6,704 | 1,079 | 3,363 | 2,217 | 1,731 | 11,040 | 12,610 |

Statement " C."

Meat Condemned at the City Abattoir and Wholesale Meat Market.

| Particulars | Year ended | |
|---|---|---|
| | 31st March, 1950 | 31st March, 1951 |
| Total weight of meat condemned at the city abattoir and wholesale meat market | Tons 951 ³ / ₄ | Tons 934 ¹ / ₂ |
| Of which the weight of dressed meat consigned from places other than the city was | 10 | 13 ¹ / ₄ |
| Included in which were imported offals amounting to .. | 70 lbs. | 166 lbs. |

Unwholesome Food Condemned.

| Kind of Food | Year ended | |
|--|-------------------------------------|--|
| | 31st March, 1950 | 31st March, 1951 |
| MEAT :— | lbs. | lbs. |
| Beef | 2,100,723 | 1,998,846 |
| Mutton | 18,150 | 20,791 |
| Veal | 28,782 | 38,178 |
| Horseflesh | — | 90 |
| Pork | 39,708 | 75,212 |
| Whalemeat | — | 224 |
| Imported offal | 70 | 166 |
| Goatflesh.. .. . | 3,136 | 5,016 |
| | 2,190,569 = 978 tons | 2,138,523 = 954 $\frac{3}{4}$ tons |
| FISH :— | lbs. | lbs. |
| Fish | 654,613 | 342,913 |
| Shellfish | 55,163 | 15,418 |
| | 709,776 = 316 $\frac{1}{4}$ tons | 358,331 = 160 tons |
| GAME | head 1,835 | head 675 |
| POULTRY | 15,043 | 7,419 |
| RABBITS | 11,040 | 12,610 |
| FRUIT | lbs. 304,460 = 136 tons | lbs. 187,742 = 83 $\frac{3}{4}$ tons |
| VEGETABLES | 363,960 = 162 $\frac{1}{2}$ tons | 245,378 = 109 $\frac{1}{2}$ tons |
| MISCELLANEOUS :— | No. | No. |
| Eggs | 640 | 1,614 |
| Evaporated, condensed and other canned Milks.. | lbs. 14,398 | lbs. 18,040 |
| Sundry Provisions | 144,564 | 101,284 |

With the exception of the following, which were seized while deposited or exposed for sale, the quantities given in the preceding tables were surrendered after being condemned by inspectors of the department :—

| Kind of Food | Year ended | |
|-------------------|------------------|------------------|
| | 31st March, 1950 | 31st March, 1951 |
| Poultry | Head 4 | Head — |
| Fish | lbs. — | lbs. 32 |
| Fruit | — | — |
| Sundry provisions | 188 | — |
| Rabbits | — | — |
| Meat | — | 132 |

NOTE.—The term “ surrendered ” includes cases in which inspectors have discovered unwholesome food in the course of their duty, but in which, owing to the salesman's acceptance of the inspector's decision, it has been deemed unnecessary to obtain a magistrate's order prior to destruction.

Carcases—Inspection and Condemnation.

Year ended December, 1951.

| | Number killed and inspected | | | | | |
|---|-----------------------------|--------|--------|-----------------|--------|-------|
| | Cattle | | Calves | Sheep and Lambs | Pigs | Goats |
| | Except Cows | Cows | | | | |
| At City Abattoir | 71,770 | 21,348 | 48,987 | 190,111 | 8,077 | 6,123 |
| Brought into City after killing and inspected | 10,695 | | 874 | 7,799 | 10,441 | Nil |

Whole carcasses condemned—all diseases except tuberculosis

| | | | | | |
|---|----|-----|-----|-----|-----|
| At City Abattoir | 42 | 527 | 166 | 186 | 288 |
| Brought into City after killing | 5 | 15 | 6 | 18 | Nil |

Carcases of which some part or organ was condemned—all diseases except tuberculosis

| | | | | | |
|---------------------------------------|-------|-----|-----|-----|-----|
| At City Abattoir | 6,472 | 103 | 972 | 934 | 350 |
| Brought into City after killing | 244 | Nil | 1 | 45 | Nil |

Percentage of the number inspected affected with disease other than tuberculosis

| | | | | | |
|---------------------------------------|-----|-----|-----|------|------|
| At City Abattoir | 7.0 | 1.3 | 0.6 | 13.9 | 10.4 |
| Brought into City after killing | 2.3 | 1.7 | 0.1 | .6 | Nil |

Tuberculosis only.

Whole carcasses condemned

| | | | | | | |
|---------------------------------------|-----|-------|-----|-----|----|-----|
| At City Abattoir | 163 | 1,122 | 156 | Nil | 28 | Nil |
| Brought into City after killing | Nil | | Nil | Nil | 1 | Nil |

Carcases of which some part or organ was condemned

| | | | | | | |
|---------------------------------------|-------|--------|-----|-----|-----|-----|
| At City Abattoir | 3,134 | 10,694 | 35 | Nil | 734 | Nil |
| Brought into City after killing | 14 | | Nil | Nil | 4 | Nil |

Percentage of the number inspected affected with tuberculosis

| | | | | | | |
|---------------------------------------|-----|------|-----|-----|-----|-----|
| At City Abattoir | 4.6 | 55.3 | 0.4 | Nil | 9.4 | Nil |
| Brought into City after killing | .1 | | Nil | Nil | .05 | Nil |

NOTE.—Carcases brought into the City, having been inspected at place of slaughter, the incidence of condemnations bears no relation to condemnations of country-dressed meat prior to 1940 when control by Ministry of Food was commenced. There is no meat marketing scheme under Part III of the Public Health (Meat) Regulations, 1924, in force in the City.

HOUSING SURVEY SECTION.

By Albert E. Beaumont, Senior Housing Inspector.

STAFF (Establishment).

Senior Housing Inspector.

Assistant Senior Housing Inspector.

8 Housing Inspectors.

6 clerks and typists.

At present there is a deficiency of 5 Housing Inspectors and 1 typist.

In accordance with the instructions of the Committee, the services of the seven temporary visitors engaged on work in connection with the overcrowding provisions of the Housing Act, 1936, were terminated at the end of the year. Details of visits made are shown later in the report.

Clearance Areas and Individual Unfit Houses Housing Act, 1936. Sections 25 and 11.

Section 25.

Following upon the decision of the Council to resume slum clearance on a limited scale, the Town Clerk received a reply from the Ministry of Local Government and Planning stating that the Minister would be prepared to consider an application for confirmation of a compulsory purchase order made under Part III of the Housing Act, 1936, in respect of a limited number of unfit houses.

Accordingly an area comprising 257 houses, designated Ridgway Street (Ancoats) Clearance Area, was represented to the Committee.

In the Clearance Areas confirmed by the Ministry but not completed there is one dwelling-house in the Miles Platting Area, one in the Broom Lane Area, and three in the New Cross Area yet to be demolished.

There are 9 Clearance Areas awaiting confirmation by the Ministry of Health. From these areas 255 houses have been vacated during the year, and 263 families rehoused, of which 109 were rehoused by the Corporation; the remaining 154 families found their own accommodation. 229 houses in these areas were demolished during the year. There remain 2,732 houses to be demolished and 2,777 families to be rehoused.

Further details in this respect are shown in Table A.

Section 11. Individual Unfit Houses.

At a meeting of the Health Committee held on 13th February, it was resolved that as from 1st April, 1951, the present procedure for the making of demolition orders be discontinued save in exceptional circumstances and that the revised procedure for dealing with individual unfit houses outlined in the report submitted be adopted.

Up to March 31st, 139 houses were represented as individual unfit houses under Section 11, Housing Act, 1936. Under the revised procedure, as a result of owners making applications to the City Architect for a licence to demolish under Section 31, Manchester Corporation Act, 1946, a further 369 houses were inspected by the Housing Inspectors and found to be unfit, and were certified by the City Architect as being structurally dangerous.

431 houses were vacated during the year from which 447 families were rehoused, 406 of them being rehoused by the Corporation.

375 houses were demolished.

A number of these houses scheduled for demolition as individual unfit houses are situated in clearance areas. Table B accompanying this report gives details in respect of their allocation.

Abatement of Overcrowding.

Housing Act, 1936. Section 58, etc.

During the year the survey of the overcrowding position was continued by the special temporary staff retained for this work. Details in respect of families living in 47,965 houses visited by this staff have been recorded, making a total since the survey commenced of 169,508 houses visited. Their records show 223 new cases of overcrowding and 210 cases where the overcrowding has been abated, making the total number of overcrowded houses 1,805 compared with 1,792 cases at the end of 1950. The attention of the Director of Housing has been drawn to these cases with a view to priority of consideration in rehousing.

Approximately 30,000 houses have yet to be visited, a large proportion of these being Corporation houses in the southern areas of the City.

An analysis of the present position is as follows :—

| Overcrowded houses— | Families | Adults | Children |
|-----------------------------------|-------------|--------------|-------------|
| 1,139 containing 1 family | 1,139 | 7,303 | 2,327 |
| 505 „ 2 families | 1,010 | 3,485 | 1,033 |
| 129 „ 3 „ | 387 | 943 | 251 |
| 32 „ 4 „ | 128 | 347 | 149 |
| <hr/> 1,805 | <hr/> 2,664 | <hr/> 12,078 | <hr/> 3,760 |

Abatement of Overcrowding during 1951.

| | Families | Adults | Children |
|-----------------------------------|----------|--------|----------|
| From privately-owned houses :— | | | |
| Rehoused by Corporation | 114 | 414 | 172 |
| To privately-owned houses | 36 | 180 | 54 |
| From Corporation houses :— | | | |
| Rehoused by Corporation | 38 | 113 | 47 |
| To privately-owned houses | 22 | 84 | 16 |
| Total abated during 1951 | 210 | 791 | 289 |

These figures show that there are 1,139 families occupying houses too small for them and 666 houses overcrowded by lodger families. Of the 210 cases of overcrowding abated, 152 of them were rehoused by the Corporation.

The following table is set out in the form required by the Ministry of Health :—

| | | | |
|-----|-------|--|--------|
| (a) | (i) | Dwellings overcrowded at the end of 1951 | 1,805 |
| | (ii) | Families dwelling therein | 2,664 |
| | (iii) | Persons dwelling therein | 15,838 |
| (b) | | New cases of overcrowding notified during the year .. | 223 |
| (c) | (i) | Cases of overcrowding relieved during 1951 | 210 |
| | (ii) | Persons concerned in such cases | 1,080 |
| (d) | | Particulars of any cases in which dwelling-houses have again become overcrowded after the local authority have taken steps for the abatement of overcrowding | Nil |

Eradication of Vermin, etc.

Public Health Act, 1936 Sections 83—85.

(A) *Vermin infested premises* (Section 83).

During the year 1,222 complaints of bug infestation were received, of which 12 applied to business premises, and 1,210 to dwelling-houses.

1,011 of the complaints came from tenants of Corporation houses : 893 of these were treated with an insecticide containing 25 per cent. D.D.T. and the remaining 118 will be dealt with early in the new year.

199 of the complaints applied to private houses, 27 of which were fumigated with H.C.N. and the remaining 172 dealt with by the tenants. The latter cases showed light infestation needing an insecticidal spraying or washing applied in accordance with methods advised by the Housing Inspectors.

6 business premises were fumigated with H.C.N. and 6 by insecticides containing DDT.

In accordance with the requirements of the Ministry, a summary of the work done is set out in the following table :—

| Premises found to be verminous | Control measures advised | Fumigation with H.C.N. | Other methods of treatment |
|--------------------------------|--------------------------|------------------------|---|
| Privately owned houses : | | | |
| Minor infestation | 172 | .. | 172 Insecticidal spraying |
| Serious infestation.. .. . | 27 | 27 | |
| Corporation houses | 1,011 | .. | 893 Insecticide containing 25 per cent. D.D.T. 118 yet to be treated. |
| Business premises : | | | |
| Minor infestation | 6 | .. | 6 Insecticidal spraying. |
| Serious infestation.. .. . | 6 | 6 | |
| Totals | 1,222 | 33 | 1,071 |

CLEARANCE AREAS.

PROGRESS REPORT, 1933-1951.

TABLE "A"

| Area | Number of Houses | Houses Vacated | | Balance Outstanding to be Vacated | Houses Demolished | | Balance Outstanding to be Demolished | Number of Families | Families Re-housed to Dec., 1950 | | | Families Re-housed during 1951 | | | Balance Outstanding Families to be Re-housed |
|--|------------------|---------------------|-------------|-----------------------------------|---------------------|-------------|--------------------------------------|--------------------|----------------------------------|-----------|--------|--------------------------------|-----------|-------|--|
| | | Total to Dec., 1950 | During 1951 | | Total to Dec., 1950 | During 1951 | | | By Corporation | Privately | Total | By Corporation | Privately | Total | |
| Clearance Areas confirmed and completed | 6,556 | 6,556 | — | — | 6,556 | — | — | 7,181 | 5,421 | 1,760 | 7,181 | — | — | — | — |
| Clearance Areas confirmed. Not completed— | | | | | | | | | | | | | | | |
| Miles Platting | 688 | 688 | — | — | 687 | — | 1 | 692 | 584 | 108 | 692 | — | — | — | — |
| Broom Lane | 12 | 12 | — | — | 11 | — | 1 | 3 | — | 3 | 3 | — | — | — | — |
| New Cross | 1,787 | 1,787 | — | — | 1,780 | 4 | 3 | 1,727 | 1,260 | 467 | 1,727 | — | — | — | — |
| | 2,487 | 2,487 | — | — | 2,478 | 4 | 5 | 2,422 | 1,844 | 578 | 2,422 | — | — | — | — |
| Clearance Areas represented. Awaiting confirmation— | | | | | | | | | | | | | | | |
| Bradford Road | 1,586 | 559 | 58 | 969 | 501 | 61 | 1,024 | 1,692 | 153 | 437 | 590 | 44 | 14 | 58 | 1,044 |
| St. George's | 1,183 | 405 | 130 | 648 | 367 | 119 | 697 | 1,179 | 90 | 273 | 363 | 23 | 107 | 130 | 686 |
| Hutchins Street | 61 | 19 | 8 | 34 | 17 | 9 | 35 | 62 | 15 | 3 | 18 | 8 | — | 8 | 36 |
| Harpurhey | 284 | 8 | — | 276 | — | — | 284 | 299 | — | — | — | — | — | — | 299 |
| Monday Street | 45 | 20 | 7 | 18 | 19 | 1 | 25 | 70 | 10 | 21 | 31 | 6 | 1 | 7 | 32 |
| Enoch Street | 31 | — | 13 | 18 | — | — | 31 | 32 | — | — | — | 12 | 1 | 13 | 19 |
| Ruth Court | 11 | 7 | — | 4 | 7 | — | 4 | 14 | — | 10 | 10 | — | — | — | 4 |
| Fog Lane | 10 | 1 | — | 9 | — | — | 10 | 9 | — | — | — | — | — | — | 9 |
| Oldham Road (Now Cross) Areas 1 to 16 .. | 786 | 172 | 39 | 575 | 125 | 39 | 622 | 844 | 40 | 109 | 149 | 16 | 31 | 47 | 648 |
| | 3,997 | 1,191 | 255 | 2,551 | 1,036 | 229 | 2,732 | 4,201 | 308 | 853 | 1,161 | 109 | 154 | 263 | 2,777 |
| Clearance Areas inspected— | | | | | | | | | | | | | | | |
| St. John's | 615 | 222 | 16 | 377 | 175 | 18 | 422 | 671 | 24 | 162 | 186 | 7 | 11 | 18 | 467 |
| Ridgway Street (Ancoats) | 257 | — | 21 | 236 | — | 3 | 254 | 259 | — | — | — | 3 | — | 3 | 256 |
| | 872 | 222 | 37 | 613 | 175 | 21 | 676 | 930 | 24 | 162 | 186 | 10 | 11 | 21 | 723 |
| TOTALS. | | | | | | | | | | | | | | | |
| In clearance Areas | 13,912 | 10,456 | 292 | 3,164 | 10,245 | 254 | 3,413 | 14,734 | 7,597 | 3,353 | 10,950 | 119 | 165 | 284 | 3,500 |
| Individual unfit houses (not in Clearance Areas) Table "B" | 1,794 | 1,398 | 299 | 97 | 1,300 | 265 | 229 | 1,831 | 1,257 | 159 | 1,416 | 287 | 32 | 319 | 96 |
| | 15,706 | 11,854 | 591 | 3,261 | 11,545 | 519 | 3,642 | 16,565 | 8,854 | 3,512 | 12,366 | 406 | 197 | 603 | 3,596 |

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|--------|----|----|----|--|-------|--|----|--|-------|
| Totals | .. | .. | .. | | 1,222 | | 33 | | 1,071 |
|--------|----|----|----|--|-------|--|----|--|-------|

INDIVIDUAL UNFIT HOUSES.

PROGRESS REPORT, 1933-1951.

TABLE "3"

| Situation of Property | Number of Houses | Houses Vacated | | Balance Outstanding to be Vacatod | Houses Demolished | | Balance Outstanding to be Demolished | Number of Families | Families Re-housed to Dec., 1950 | | | Families Re-housed during 1951 | | | Balance Outstanding — Families to be Re-housed |
|---|------------------|---------------------|-------------|-----------------------------------|---------------------|-------------|--------------------------------------|--------------------|----------------------------------|-----------|-------|--------------------------------|-----------|-------|--|
| | | Total to Dec., 1950 | During 1951 | | Total to Dec., 1950 | During 1951 | | | By Corporation | Privately | Total | By Corporation | Privately | Total | |
| HOUSING ACT, 1936, SECTION 11. | | | | | | | | | | | | | | | |
| (a) Not in Clearance Areas | 1,531 | 1,398 | 131 | 2 | 1,300 | 214 | 17 | 1,568 | 1,257 | 159 | 1,416 | 125 | 26 | 151 | 1 |
| (b) In Clearance Areas : | | | | | | | | | | | | | | | |
| Bradford Road | 191 | 168 | 23 | — | 145 | 46 | — | 184 | 155 | 7 | 162 | 22 | — | 22 | — |
| St. George's | 109 | 93 | 16 | — | 86 | 23 | — | 114 | 91 | 8 | 99 | 11 | 4 | 15 | — |
| Hutchins Street | 24 | 16 | 8 | — | 15 | 9 | — | 25 | 15 | 2 | 17 | 8 | — | 8 | — |
| Oldham Road (New Cross) | 54 | 40 | 14 | — | 36 | 18 | — | 57 | 36 | 7 | 43 | 12 | 2 | 14 | — |
| Monday Street | 8 | 8 | — | — | 8 | — | — | 14 | 10 | 4 | 14 | — | — | — | — |
| St. John's | 30 | 29 | 1 | — | 26 | 4 | — | 32 | 25 | 5 | 30 | 2 | — | 2 | — |
| Totals | 1,947 | 1,752 | 193 | 2 | 1,616 | 314 | 17* | 1,994 | 1,589 | 192 | 1,781 | 180 | 32 | 212 | 1 |
| MANCHESTER CORPORATION ACT, 1946, SECTION 31. | | | | | | | | | | | | | | | |
| (a) Not in Clearance Areas | 263 | — | 168 | 95 | — | 51 | 212 | 263 | — | — | — | 162 | 6 | 168 | 95 |
| (b) In Clearance Areas : | | | | | | | | | | | | | | | |
| Bradford Road | 41 | — | 23 | 18 | — | 1 | 40 | 38 | — | — | — | 22 | — | 22 | 16 |
| St. George's | 18 | — | 14 | 4 | — | 5 | 13 | 17 | — | — | — | 12 | 1 | 13 | 4 |
| Oldham Road (New Cross) | 5 | — | 4 | 1 | — | — | 5 | 5 | — | — | — | 4 | — | 4 | 1 |
| Monday Street | 7 | — | 6 | 1 | — | — | 7 | 7 | — | — | — | 6 | — | 6 | 1 |
| Enoch Street | 13 | — | 13 | — | — | — | 13 | 13 | — | — | — | 12 | 1 | 13 | — |
| Ridgway Street | 3 | — | 3 | — | — | 3 | — | 4 | — | — | — | 3 | 1 | 4 | — |
| St. John's | 19 | — | 7 | 12 | — | 1 | 18 | 16 | — | — | — | 5 | — | 5 | 11 |
| | 369 | — | 238 | 131 | — | 61 | 308 | 363 | — | — | — | 226 | 9 | 235 | 128 |
| TOTAL INDIVIDUAL UNFIT HOUSES | 2,316 | 1,752 | 431 | 133 | 1,616 | 375 | 325 | 2,357 | 1,589 | 192 | 1,781 | 406 | 41 | 447 | 129 |

* Includes 13 houses "bricked up"

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(B) *Furniture and Effects* (Section 84).

In accordance with the Committee's resolution of 13th February, the process of disinfection of furniture and personal effects of tenants removed from individual unfit houses to Corporation houses, was, from 1st April, undertaken by the D.D.T. method after the removal had been effected.

Also, from the same date, the practice of paying all removal expenses of tenants removed from individual unfit houses was discontinued.

No persons availed themselves of the facilities to attend Monsall Disinfecting Station to have their personal clothing cleansed.

Applications for rehousing on grounds of ill-health.

2,009 cases of this nature were considered during the year. The conditions under which the family is living are taken into account, together with any medical evidence in support of the claim. Where substantiated, a medical category of priority is awarded and the Director of Housing notified accordingly.

Fifty-three per cent. of the claims submitted warranted a degree of priority.

"Share your Homes" Scheme.

11 applications for the registration of rooms under the scheme were investigated and found suitable; 1 application was withdrawn, and the remaining 10 were registered.

The total number registered to date is 198.

Applications for Building Licences.

42 applications, based on medical grounds, were received ; 26 were approved, but in 16 cases the medical evidence submitted was considered insufficient to warrant the granting of building licences.

ANNUAL REPORT FOR 1951 OF THE NURSING ORGANISER.

The Nursing Office was established in 1945 in the Health Department and centred in Room 306.

During the past year the office has been actively engaged in all branches of the Nursing Profession pertaining to the Health Services; our connections with the Hospital Service have not been severed, and we have continued to give advice and assistance to Hospitals both within and outside the Manchester area.

More than 1,116 applications have been made to the office during the year; 80 per cent. of these have required, and received, personal interviews.

372 have been trained personnel, who were directed to suitable vacancies in the sections of the Health Department, e.g.:—

Special Investigators in Whooping Cough Research.

Nursery Staff in the Maternity and Child Welfare Section.

Midwives to the Domiciliary Midwifery Service.

Special Maternity Nurses.

Health Visitors and Student Health Visitors.

Home Nursing Service—Nurses holding the qualification of Queen's Nurses and others have been advised to take up this special training.

Selected personnel were also directed to vacancies in the School Medical Service.

Other trained personnel, not finding employment within the Health Department, have been passed to Hospitals, where they have usually found suitable employment, and the references from the Nursing Office have been appreciated by Matrons and Administrative Staff.

240 girls under 18 years of age have had personal interviews. 20 per cent. of these have been sent by the Youth Employment Officers of Altrincham and Sale, Manchester and Salford, Stockport, and Stretford, who are engaged in seeking careers for young girls and boys; specialist advice has been sought on their behalf.

A large number of these have been accepted as suitable candidates for the Nursery Nurses' Entrance Examination for Nursery Nurse Training; others have been directed to Cadet Corps within the Hospitals, or further education at Evening School, or further advice on other pre-student-nursing courses.

Advice is also given on careers in Radiography, Physiology, Occupational Therapy, Industrial Nursing, Ophthalmic Nursing, etc.

158 applications for private assistance, which could not otherwise be dealt with by the Health Services, received advice and were directed to suitable Nursing Homes, Nursing Agencies, and to members of the Nursing Profession in a private capacity.

Assistance for setting up examinations has been given to the British Red Cross Society and to Hospital Training Schools and where necessary practical help with the examinations was given. Arrangements have also been made for educational visits to air-conditioning plants, sewage disposal plants, public libraries, etc., under the control of the Manchester Corporation.

Further arrangements were made for foreign post-graduate students, visiting Manchester for educational purposes, to study the Corporation Services of the City, and this included a detailed tour of the Town Hall.

The Hospitals in and near Manchester have acknowledged the help received from this office by inviting the Nursing Organiser to prize givings, exhibitions, special lectures, and study courses.

The Nursing Exhibition is maintained and is lent to Hospitals when requested. During 1951 it has also been on loan to:—

The Ministry of Labour and National Service.

Manchester and District Secondary and Grammar Schools.

The Youth Employment Bureau, Deansgate.

Civil Defence Exhibition—under the auspices of Macclesfield and West Park Hospital.

A small exhibition has accompanied the Nursing Organiser when presenting school lectures, as at:—

Lily Lane Girls' School.

Moston Lane Girls' School.

British Red Cross Society Cadets, Urmston.

Mount St. Joseph Secondary School, Bolton.

Ancoats Women's Organisation.

Further lectures have also been given to:—

Manchester and Salford Council of Social Service.

Ministry of Labour and National Service.

Town Women's Guild.

The Nursing Organiser continues to represent the Health Department on the following organisations:—

Secondary and Grammar School Parents' Association.

Ministry of Labour and National Service.

East Lancashire Joint County Committee for the British Red Cross Society and St. John of Jerusalem.

Youth Employment Bureau.

Youth Vocational Guidance Committee.

HEALTH EDUCATION.

During the year under review Health Education has been brought more forcibly to the attention of the general public than in past years. This has been achieved mainly through the medium of lectures and addresses delivered by both the medical and lay staff to various organizations and societies. It has been noticeable that the attendances at these meetings have, in the main, been in excess of those of previous years, and the type of question asked after the lecture show that the people are taking more than a passing interest in health education. Valuable work on this line of approach has also been carried out by the staff of the Child Welfare Centres through their talks to mothers, and also with the aid of exhibitions held at the respective centres.

Posters and pamphlets covering a wide range of subjects have been issued to surgeries, offices, industrial and catering establishments. Health Visitors and Midwives have also assisted in the distribution of health literature.

The booklet "Family Welfare Service" has been revised and a new edition published. This booklet lists the help which is offered to residents who may require advice with regard to personal and family problems.

The monthly magazine "Better Health" continues to be circulated to the public through child welfare centres and other sources.

Advertisements relating to health propaganda have been inserted in local newspapers and publications.

In September, a Local Government Exhibition was held in the Exhibition Hall of the Central Library and the Health Department was represented. "Cleanliness is next to Godliness" was epitomised but predominance was given to the theme that "Prevention is better than cure." This was illustrated by charts, photographs and models defining progress in health matters over the past one hundred years. Exhibition material was also loaned to various other bodies and advice given regarding the best methods of display.

Medical, Education and Social Administration students were regularly in contact with the Department seeking information in relation to their studies, and were always appreciative of the facilities afforded to them. In this connection and in conjunction with the University, visits were arranged to various hospitals and clinics and to the Tuberculosis Centre.

SUMMARY OF EDUCATIONAL WORK DURING 1951 IN CONNECTION WITH THE HEALTH VISITORS, CHILD WELFARE CENTRES, DAY NURSERIES, ETC.

Lectures given by Health Visitors to Outside Organisations.

- 2 lectures to Young Wives' League.
- 1 lecture to Girls' Friendly Society.
- 1 lecture to Plus Sixty Club.
- 1 lecture to Over Sixty Club.
- 32 lectures to Old People's Welfare Club.
- 1 lecture to Social Study Group.
- 1 lecture to Community Association.
- 1 lecture to Women's Guild.
- 1 lecture to The International Group of the Young Women's Christian Association.
- 1 lecture to Women's Co-operative Guild.

A course of 10 lectures on Mothercraft in H.M. Prison to women with young children.

Lectures and practical experience arranged for student nurses from local hospitals.

Student Nurses from a Children's Hospital.

- 48 students attended a Child Welfare Centre.
- 20 students spent a session with a health visitor on the district.

Student Nurses from a General Hospital.

- 98 students were given a talk by the Superintendent Health Visitor on the work of the health visitor and also spent a morning with the health visitor on the district.
-

Queen's Nurse Students.

Visits to Child Welfare Centres and Day Nurseries for observation :—

- | | | |
|-------------|---|--|
| 8 students | } | These students are given a talk on the work of the Centre Superintendent and Nursery Matron. |
| 10 students | | |

Nursery Students.

Visits of observation and an explanation of the work :—

1st Group .. Visits to 6 Child Welfare Centres.
Visit to Monsall Cleansing Clinic.

2nd Group .. Visits to 6 Child Welfare Centres.

3rd Group .. Visits to 5 Child Welfare Centres.

Medical Students.

8 students from the Department of Child Health, St. Mary's Hospitals attend a Day Nursery and an Infant Clinic at a Child Welfare Centre each month.

Doctors attending the Department for *special experience*.

13 doctors studying for their D.C.H. Examination :—

Experience .. Attendance at Infant Sessions (Child Welfare Centres).
Attendance at Day Nursery.
Visits on the district with health visitors.
Time spent at the Central Office to get an insight into the
administrative side of the work.
Number of visits paid 55

Medical Students Attending the Child Welfare Centre Ante-Natal Clinics for Experience.

19 students.
108 visits.

Visitors from Abroad.

- 2 Singalese nurses Visits to Child Welfare Centres and Day Nurseries.
Visits to Central Office for a talk on the administration
of the Department.
- 2 Nigerian students Visits to Child Welfare Centres and Day Nurseries.
Visits to Central Office for a talk on the administration
of the Department.
- 4 students attending a Paediatric Course in Manchester—
- | | |
|--------------|--|
| From Denmark | } Met the Superintendent Health Visitor for a morning conference and spent a day visiting Child Welfare Centres and Day Nurseries. |
| Sweden | |
| Switzerland | |
| New Zealand | |
- 1 doctor from Damascus spent 2 days in the Department and visited Child Welfare Centres and Day Nurseries.
- 1 doctor from the United States of America World Health Organisation Fellow spent 1 week in the Department.
- 1 Chinese doctor from World Health Organisation Fellow spent 3 weeks in the Department.
- 2 visitors from France spent 2 days in the Department—
- (1) Vice-President of the Association of Nurses and Social Workers of the French Red Cross.
 - (2) The General Secretary of that Organisation.

Students—Various.

- 2 students taking a course in Social Studies—
Visits to Child Welfare Centres and Day Nurseries.
- 1 student (a teacher from London) spent 1 week in the Department.
- 2 students studying Social Conditions spent 1 day at Child Welfare Centres and Day Nurseries.
- 1 Social Research student spent 3 days in the Department.
- 1 student (hospital almoner) spent 1 day in the Department.
- 1 student (teacher from London) spent her Easter vacation paying visits to Child Welfare Centres and Day Nurseries.
- 1 Post-Graduate Diploma student spent 2 weeks in the Department to gain experience.

Students in Social Administration.

1st Group 7 students attended Child Welfare Centre Infant Clinics for a half-day each week from 31st January to 9th March and spent a half-day on the district with a health visitor. They also attended the Central Office for a talk on the administrative side of the work.

1 student spent one day a week in the Department of the Welfare Officer for the unmarried mother and her child for the same period.

2nd Group 4 students attended Child Welfare Centre Infant Clinics for a half-day each week from 24th October to 28th November, 1951, and spent a half-day on the district with a health visitor. They also attended the Central Office for a talk on the administrative side of the work.

1 student spent 1 day a week in the Department of the Welfare Officer for the unmarried mother and her child, for the same period.

| YEAR | POPULATION | DEATH RATE | | | BIRTH RATE | | | INFANT DEATH RATE | | | ALL PUERPERAL CAUSES | | | PUERPERAL AND POST-ABORTIVE SEPSIS | | | OTHER PUERPERAL CAUSES | | | ALL FORMS OF TUBERCULOSIS | | | PULMONARY TUBERCULOSIS | | | OTHER FORMS OF TUBERCULOSIS | | | SMALLPOX | | | TYPHOID AND PARATYPHOID FEVERS | | |
|------|----------------------|------------------|----------------|-------------------|------------------|----------------|-------------------|-------------------|-----------------|-------------------|----------------------|----------------------|-------------------|------------------------------------|----------------------|-------------------|------------------------|----------------------|-------------------|---------------------------|--------|---------------------|------------------------|--------|---------------------|-----------------------------|--------|---------------------|----------|--------|---------------------|--------------------------------|--------|---------------------|
| | | Number of Deaths | Per 1000 Pop'n | England and Wales | Number of Births | Per 1000 Pop'n | England and Wales | Number of Deaths | Per 1000 Births | England and Wales | Number of Deaths | Rate per 1000 Births | England and Wales | Number of Deaths | Rate per 1000 Births | England and Wales | Number of Deaths | Rate per 1000 Births | England and Wales | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n |
| 1913 | 730982 | 11521 | 15.76 | 13.8 | 18791 | 25.71 | 24.1 | 2415 | 129 | 108 | 72 | 3.83 | 3.96 | 22 | 1.17 | 1.26 | 50 | 2.66 | 2.70 | 3885 | 1409 | 1.93 | 2412 | 1002 | 1.48 | 1473 | 327 | .45 | 1 | — | — | 292 | 48 | .07 |
| 1914 | 731830 | 12473 | 17.04 | 14.0 | 18779 | 25.66 | 23.8 | 2423 | 129 | 104 | 79 | 4.21 | 4.17 | 26 | 1.38 | 1.55 | 53 | 2.82 | 2.62 | 3596 | 1639 | 2.24 | 2664 | 1293 | 1.77 | 932 | 346 | .47 | — | — | — | 156 | 40 | .05 |
| 1915 | 700319 | 12236 | 17.47 | 15.7 | 16696 | 23.84 | 21.8 | 2141 | 128 | 109 | 74 | 4.43 | 4.18 | 31 | 1.86 | 1.47 | 43 | 2.57 | 2.71 | 3050 | 1639 | 2.34 | 2213 | 1342 | 1.92 | 837 | 297 | .42 | — | — | — | 174 | 37 | .05 |
| 1916 | B 742690 D 682608 | 11025 | 16.15 | 14.3 | 15597 | 21.00 | 21.9 | 1737 | 111 | 91 | 64 | 4.10 | 4.12 | 21 | 1.35 | 1.38 | 43 | 2.76 | 2.74 | 3434 | 1587 | 2.32 | 2549 | 1258 | 1.84 | 885 | 329 | .48 | — | — | — | 78 | 23 | .03 |
| 1917 | B 735873 D 660143 | 10276 | 15.57 | 14.2 | 12937 | 17.58 | 18.1 | 1438 | 111 | 96 | 45 | 3.48 | 3.89 | 16 | 1.24 | 1.31 | 29 | 2.24 | 2.58 | 3129 | 1569 | 2.38 | 2247 | 1228 | 1.86 | 882 | 341 | .52 | — | — | — | 86 | 10 | .02 |
| 1918 | B 746011 D 665807 | 12227 | 18.36 | 17.3 | 12926 | 17.33 | 17.6 | 1381 | 107 | 97 | 42 | 3.25 | 3.79 | 15 | 1.16 | 1.28 | 27 | 2.09 | 2.51 | 2544 | 1471 | 2.21 | 1846 | 1196 | 1.89 | 698 | 275 | .41 | — | — | — | 68 | 9 | .01 |
| 1919 | B 771973 D 741068 | 10678 | 14.41 | 14.0 | 13686 | 17.73 | 18.5 | 1333 | 97 | 89 | 67 | 4.89 | 4.37 | 33 | 2.41 | 1.67 | 34 | 2.48 | 2.70 | 2025 | 1206 | 1.63 | 1591 | 986 | 1.33 | 434 | 220 | .30 | 14 | 1 | .001 | 90 | 19 | .03 |
| 1920 | 738000 | 10300 | 13.96 | 12.4 | 19213 | 26.03 | 25.4 | 1882 | 98 | 79 | 67 | 3.49 | 4.33 | 45 | 2.34 | 1.81 | 22 | 1.15 | 2.52 | 2044 | 1101 | 1.49 | 1507 | 899 | 1.22 | 537 | 202 | .27 | 4 | — | — | 54 | 11 | .01 |
| 1921 | 744000 | 10111 | 13.59 | 12.1 | 17549 | 23.59 | 22.4 | 1713 | 98 | 82 | 64 | 3.65 | 3.91 | 34 | 1.94 | 1.38 | 30 | 1.71 | 2.53 | 2174 | 1230 | 1.65 | 1644 | 981 | 1.32 | 530 | 249 | .33 | — | — | — | 90 | 12 | .02 |
| 1922 | 748500 | 10653 | 14.23 | 12.8 | 15787 | 21.09 | 20.6 | 1525 | 97 | 77 | 59 | 3.74 | 3.81 | 31 | 1.96 | 1.38 | 28 | 1.77 | 2.43 | 2081 | 1199 | 1.60 | 1486 | 054 | 1.27 | 595 | 245 | .33 | 4 | — | — | 38 | 5 | .007 |
| 1923 | 752100 | 10078 | 13.40 | 11.6 | 15388 | 20.46 | 19.7 | 1360 | 88 | 69 | 58 | 3.77 | 3.81 | 20 | 1.30 | 1.30 | 38 | 2.47 | 2.51 | 2228 | 1154 | 1.53 | 1496 | 936 | 1.24 | 732 | 218 | .29 | — | — | — | 50 | 9 | .01 |
| 1924 | 755000 | 10563 | 13.99 | 12.2 | 14483 | 19.18 | 18.8 | 1454 | 100 | 75 | 71 | 4.90 | 3.90 | 31 | 2.14 | 1.39 | 40 | 2.76 | 2.51 | 2200 | 1137 | 1.51 | 1568 | 910 | 1.21 | 632 | 227 | .30 | — | — | — | 106 | 13 | .07 |
| 1925 | 755800 | 10960 | 14.50 | 12.2 | 14162 | 18.74 | 18.3 | 1364 | 96 | 75 | 51 | 3.60 | 4.08 | 26 | 1.84 | 1.56 | 25 | 1.77 | 2.52 | 2134 | 1193 | 1.58 | 1511 | 1005 | 1.33 | 623 | 187 | .25 | — | — | — | 69 | 10 | .01 |
| 1926 | 752000 | 10077 | 13.40 | 11.6 | 13969 | 18.58 | 17.8 | 1216 | 87 | 70 | 68 | 4.87 | 4.12 | 30 | 2.15 | 1.60 | 38 | 2.72 | 2.52 | 1810 | 1082 | 1.44 | 1352 | 911 | 1.21 | 458 | 171 | .23 | 2 | — | — | 33 | 10 | .01 |
| 1927 | 751900 | 10532 | 14.01 | 12.3 | 13036 | 17.34 | 16.7 | 1122 | 86 | 69 | 65 | 4.99 | 4.11 | 27 | 2.07 | 1.57 | 38 | 2.92 | 2.54 | 1889 | 1060 | 1.41 | 1388 | 894 | 1.19 | 501 | 166 | .22 | 36 | — | — | 24 | 3 | .004 |
| 1928 | 755900 | 9989 | 13.21 | 11.7 | 12902 | 17.07 | 16.7 | 1179 | 91 | 65 | 59 | 4.57 | 4.42 | 27 | 2.09 | 1.79 | 32 | 2.48 | 2.63 | 1895 | 998 | 1.32 | 1409 | 852 | 1.13 | 486 | 146 | .19 | 68 | — | — | 37 | 4 | .005 |
| 1929 | 746500 | 11839 | 15.86 | 13.4 | 13058 | 17.49 | 16.3 | 1272 | 97 | 74 | 61 | 4.67 | 4.33 | 24 | 1.84 | 1.80 | 37 | 2.83 | 2.53 | 1751 | 1078 | 1.44 | 1373 | 931 | 1.25 | 378 | 147 | .20 | 8 | 1 | .001 | 49 | 6 | .008 |
| 1930 | 757900 | 9791 | 12.92 | 11.4 | 12851 | 16.96 | 16.3 | 995 | 77 | 60 | 64 | 4.74 | 3.40 | 34 | 2.52 | 1.92 | 30 | 2.22 | 2.48 | 1709 | 1061 | 1.40 | 1263 | 898 | 1.18 | 446 | 163 | .22 | 2 | — | — | 42 | 8 | .01 |
| 1931 | 772090 | 10645 | 13.79 | 12.3 | 12337 | 15.98 | 15.8 | 1049 | 85 | 66 | 40 | †3.09 | †3.94 | 18 | †1.39 | †1.59 | 22 | †1.70 | †2.35 | 1710 | 994 | 1.29 | 1229 | 861 | 1.12 | 481 | 133 | .17 | — | — | — | 27 | 4 | .005 |
| 1932 | 763000 | 10076 | 13.21 | 12.0 | 11825 | 15.50 | 15.3 | 1015 | 86 | 65 | 47 | 3.79 | 4.04 | 20 | 1.61 | 1.55 | 27 | 2.18 | 2.49 | 1449 | 885 | 1.16 | 1061 | 766 | 1.00 | 388 | 119 | .16 | — | — | — | 47 | 3 | .004 |
| 1933 | 758150 | 10345 | 13.65 | 12.3 | 11156 | 14.71 | 14.4 | 834 | 75 | 64 | 52 | 4.43 | 4.32 | 20 | 1.70 | 1.75 | 32 | 2.73 | 2.57 | 1357 | 891 | 1.18 | 1053 | 791 | 1.04 | 304 | 100 | .13 | — | — | — | 15 | 2 | .003 |
| 1934 | 754600 | 9530 | 12.63 | 11.8 | 11555 | 15.31 | 14.8 | 798 | 69 | 59 | 48 | 3.97 | 4.42 | 16 | 1.32 | 1.95 | 32 | 2.65 | 2.47 | 1329 | 881 | 1.17 | 1026 | 761 | 1.01 | 303 | 120 | .16 | — | — | — | 16 | 2 | .003 |
| 1935 | 748100 | 10120 | 13.53 | 11.7 | 11379 | 15.21 | 14.7 | 809 | 71 | 57 | 44 | 3.69 | 3.93 | 23 | 1.93 | 1.61 | 21 | 1.76 | 2.32 | 1251 | 808 | 1.08 | 957 | 714 | .95 | 294 | 94 | .13 | — | — | — | 25 | 4 | .005 |
| 1936 | 744000 | 10207 | 13.72 | 12.1 | 11231 | 15.10 | 14.8 | 863 | 77 | 59 | 52 | 4.42 | 3.65 | 16 | 1.36 | 1.34 | 36 | 3.06 | 2.31 | 1226 | 776 | 1.04 | 937 | 671 | .90 | 289 | 105 | .14 | — | — | — | 19 | 2 | .003 |
| 1937 | 736500 | 10216 | 13.87 | 12.4 | 10786 | 14.64 | 14.9 | 823 | 76 | 58 | 46 | 4.09 | 3.13 | 13 | 1.16 | .94 | 33 | 2.93 | 2.19 | 1359 | 789 | 1.07 | 1001 | 674 | .92 | 358 | 115 | .16 | — | — | — | 13 | 1 | .001 |
| 1938 | 732900 | 9243 | 12.61 | 11.6 | 11025 | 15.04 | 15.1 | 761 | 69 | 53 | 46 | 3.98 | 2.97 | 17 | 1.47 | .86 | 29 | 2.51 | 2.11 | 1189 | 726 | .99 | 907 | 627 | .86 | 282 | 99 | .14 | — | — | — | 7 | — | — |
| 1939 | B 727600 D 702500 | 9405 | 13.39 | 12.1 | 10378 | 14.26 | 15.0 | 634 | 61 | 50 | 31 | 2.85 | 2.82 | 8 | .73 | .74 | 23 | 2.12 | 2.08 | 1114 | 701 | 1.00 | 849 | 601 | .86 | 265 | 100 | .14 | — | — | — | 30 | 1 | .001 |
| 1940 | 622300 | 11191 | 17.98 | 14.3 | 10388 | 16.69 | 14.6 | 729 | 70 | 55 | 24 | 2.21 | 2.16* | 9 | .83 | .52* | 15 | 1.38 | 1.64* | 1182 | 769 | 1.24 | 943 | 678 | 1.09 | 239 | 91 | .15 | — | — | — | 72 | 1 | .002 |
| 1941 | 601840 | 10016 | 16.64 | 12.9 | 9849 | 16.36 | 14.2 | 832 | 84 | 59 | 26 | 2.53 | 2.23* | 10 | .97 | .48* | 16 | 1.56 | 1.75* | 1226 | 704 | 1.32 | 968 | 679 | 1.13 | 258 | 115 | .19 | — | — | — | 69 | — | — |
| 1942 | 601000 | 8861 | 14.72 | 11.6 | 10276 | 17.07 | 15.8 | 663 | 65 | 49 | 25 | 2.33 | 2.01* | 7 | .65 | .42* | 18 | 1.68 | 1.59* | 1128 | 672 | 1.12 | 894 | 592 | .99 | 234 | 80 | .13 | — | — | — | 11 | 2 | .003 |
| 1943 | 599300 | 9290 | 15.50 | 12.1 | 11185 | 18.66 | 16.5 | 681 | 61 | 49 | 27 | 2.33 | 2.29 | 12 | 1.04 | .73 | 15 | 1.29 | 1.56 | 1172 | 639 | 1.07 | 900 | 546 | .91 | 272 | 93 | .16 | — | — | — | 20 | 1 | .002 |
| 1944 | 614760 | 8731 | 14.20 | 11.6 | 12204 | 19.85 | 17.6 | 654 | 54 | 46 | 23 | 1.83 | 1.93 | 8 | .64 | .59 | 15 | 1.19 | 1.34 | 1051 | 559 | .91 | 840 | 491 | .80 | 211 | 68 | .11 | — | — | — | 4 | — | — |
| 1945 | 623480 | 8985 | 14.41 | 11.4 | 11362 | 18.22 | 16.1 | 634 | 56 | 46 | 12 | 1.02 | 1.79 | 3 | .25 | .49 | 9 | .77 | 1.30 | 1113 | 577 | .93 | 913 | 496 | .80 | 200 | 81 | .13 | — | — | — | 9 | 1 | .001 |
| 1946 | 668660 | 9038 | 13.52 | 11.5 | 13969 | 20.89 | 19.1 | 890 | 64 | 43 | 23 | 1.60 | 1.43 | 5 | .35 | .31 | 18 | 1.25 | 1.12 | 973 | 527 | .79 | 805 | 460 | .69 | 168 | 67 | .10 | — | — | — | 18 | 1 | .001 |
| 1947 | 685560 | 9453 | 13.79 | 12.0 | 15830 | 23.09 | 20.5 | 946 | 60 | 41 | 25 | 1.54 | 1.17 | 9 | .55 | .26 | 16 | .99 | .91 | 920 | 514 | .75 | 786 | 450 | .66 | 134 | 64 | .09 | — | — | — | 4 | — | — |
| 1948 | 693000 | 8501 | 12.27 | 10.8 | 13794 | 19.90 | 17.9 | 581 | 42 | 34 | 11 | .78 | 1.02 | 1 | .07 | .24 | 10 | .71 | .78 | 1004 | 526 | .76 | 863 | 477 | .69 | 141 | 49 | .07 | — | — | — | 4 | 1 | .001 |
| 1949 | 699600 | 9036 | 12.91 | 11.7 | 13129 | 18.77 | 16.7 | 502 | 38 | 32 | 16 | 1.19 | .98 | 6 | .45 | .22 | 10 | .74 | .76 | 1053 | 456 | 0.65 | 899 | 418 | .60 | 154 | 38 | .05 | — | — | — | 15 | — | — |
| 1950 | 704500 | 8999 | 12.77 | 11.6 | 12436 | 17.65 | 15.8 | 471 | 38 | 30 | 10 | 0.78 | .86 | 1 | .08 | .12 | 9 | .70 | .74 | 869 | 458 | 0.65 | 737 | 411 | .58 | 132 | 47 | .07 | — | — | — | 2 | 1 | .001 |
| 1951 | 699900 | 9676 | 13.82 | 12.5 | 12438 | 17.77 | 15.5 | 439 | 35 | 30 | 19 | 1.49 | .79 | 5 | .39 | .19 | 14 | 1.10 | .60 | 816 | 357 | 0.51 | 711 | 318 | .45 | 105 | 39 | .06 | — | — | — | 15 | — | — |

B Population for calculating Birth-rates.
D Population for calculating Death-rates.
* Excluding Abortion.
† From 1931 Rates for Maternal Mortality are based on Live and Still Births.

Health Reports, 1913 to 1951

| FEVER | DIPHTHERIA | | | MEASLES | | | WHOOPIING COUGH | | | BRONCHITIS | | PNEUMONIA— ALL FORMS | | | INFLUENZA | | DIARRHOEA (Under 2 Years) | | APPENDICITIS | | MALIGNANT NEOPLASMS | | HEART DISEASE | | OTHER DISEASES OF CIRCULATORY SYSTEM | | NEPHROSIS AND NEPHRITIS | | CONGENITAL MALFORMATIONS AND DEBILITY, ETC., INCLUDING PREMATURE BIRTH | | VIOLENCE (Apart from Suicide) | | SUICIDE | | YEAR | |
|-------|---------------------------|----------|--------|---------------------------|----------|--------|---------------------------|----------|--------|---------------------------|--------|---------------------------|----------|--------|---------------------------|--------|------------------------------|--------|---------------------------|--------|---------------------------|--------|----------------------------|--------|---|--------|-------------------------------|--------|---|--------|-------------------------------------|--------|---------------------------|-----|------|------|
| | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Notified | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1,000 Pop'n | Deaths | Rate per 1,000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | Deaths | Rate per 1000 Pop'n | | | |
| 13 | | 650 | 99 | 14 | — | 264 | 36 | — | 137 | 19 | 1145 | 1.57 | — | 1173 | 1.60 | 132 | 18 | 622 | 85 | 49 | 07 | 725 | 99 | 842 | 1.15 | — | — | 296 | 40 | 741 | 1.01 | 425 | 58 | 66 | 09 | 1913 |
| 22 | | 746 | 103 | 14 | — | 300 | 41 | — | 285 | 39 | 1206 | 1.65 | — | 1321 | 1.81 | 118 | 16 | 523 | 71 | 53 | 07 | 751 | 1.03 | 912 | 1.25 | — | — | 359 | 49 | 734 | 1.00 | 457 | 62 | 66 | 09 | 1914 |
| 12 | | 548 | 103 | 15 | — | 453 | 65 | — | 70 | 10 | 1305 | 1.86 | — | 1141 | 1.63 | 142 | 20 | 479 | 68 | 58 | 08 | 784 | 1.12 | 1020 | 1.46 | — | — | 359 | 51 | 668 | 95 | 399 | 57 | 44 | 06 | 1915 |
| 05 | | 614 | 64 | 09 | 9230 | 184 | 27 | — | 304 | 45 | 1232 | 1.80 | — | 991 | 1.45 | 140 | 21 | 305 | 45 | 57 | 08 | 805 | 1.18 | 872 | 1.28 | — | — | 331 | 48 | 523 | 77 | 424 | 62 | 26 | 04 | 1916 |
| 02 | | 581 | 57 | 09 | 10613 | 293 | 44 | — | 53 | 08 | 1132 | 1.71 | — | 984 | 1.49 | 105 | 16 | 282 | 43 | 48 | 07 | 786 | 1.19 | 820 | 1.24 | — | — | 304 | 46 | 478 | 72 | 390 | 59 | 33 | 05 | 1917 |
| 03 | | 518 | 55 | 08 | 8448 | 167 | 25 | 5738 | 332 | 50 | 1040 | 1.56 | — | 1500 | 2.25 | 2042 | 3.07 | 139 | 21 | 33 | 05 | 823 | 1.24 | 773 | 1.16 | — | — | 271 | 41 | 470 | 71 | 295 | 44 | 37 | 06 | 1918 |
| 04 | | 471 | 35 | 05 | 8420 | 106 | 14 | 1000 | 39 | 05 | 1246 | 1.68 | 1226 | 1027 | 1.39 | 1088 | 1.47 | 162 | 22 | 38 | 05 | 868 | 1.17 | 869 | 1.17 | — | — | 262 | 35 | 504 | 68 | 299 | 40 | 51 | 07 | 1919 |
| 06 | | 914 | 71 | 10 | 10635 | 210 | 28 | 2290 | 86 | 12 | 1177 | 1.59 | 825 | 1019 | 1.38 | 228 | 31 | 237 | 32 | 53 | 07 | 948 | 1.28 | 902 | 1.22 | — | — | 270 | 37 | 689 | 93 | 305 | 41 | 43 | 06 | 1920 |
| 08 | | 1045 | 90 | 12 | 1135 | 4 | 005 | 4415 | 170 | 23 | 1038 | 1.40 | 1796 | 995 | 1.34 | 204 | 27 | 375 | 50 | 52 | 07 | 953 | 1.28 | 1002 | 1.35 | 236 | 32 | 258 | 35 | 581 | 78 | 282 | 38 | 63 | 08 | 1921 |
| 08 | | 839 | 79 | 11 | 19614 | 358 | 48 | 2160 | 99 | 13 | 1233 | 1.65 | 2755 | 1149 | 1.54 | 387 | 52 | 190 | 25 | 49 | 07 | 964 | 1.29 | 1006 | 1.34 | 236 | 32 | 282 | 38 | 513 | 69 | 272 | 36 | 76 | 10 | 1922 |
| 04 | | 549 | 47 | 06 | 3481 | 84 | 11 | 3804 | 186 | 25 | 1061 | 1.41 | 2493 | 1097 | 1.46 | 279 | 37 | 209 | 28 | 53 | 07 | 1058 | 1.41 | 1022 | 1.36 | 274 | 36 | 250 | 33 | 440 | 59 | 252 | 34 | 70 | 09 | 1923 |
| 05 | | 574 | 61 | 08 | 18349 | 373 | 49 | 1706 | 112 | 15 | 1153 | 1.53 | 2650 | 1106 | 1.46 | 334 | 44 | 186 | 25 | 45 | 06 | 1057 | 1.40 | 1066 | 1.41 | 368 | 49 | 260 | 34 | 511 | 68 | 257 | 34 | 55 | 07 | 1924 |
| 08 | | 1037 | 99 | 13 | 7941 | 128 | 17 | 3333 | 211 | 28 | 1279 | 1.69 | 2551 | 1060 | 1.40 | 259 | 34 | 213 | 28 | 49 | 06 | 1060 | 1.40 | 1140 | 1.51 | 471 | 62 | 244 | 32 | 484 | 64 | 288 | 38 | 87 | 12 | 1925 |
| 03 | | 1153 | 102 | 14 | 10953 | 162 | 22 | 2094 | 63 | 08 | 996 | 1.32 | 2189 | 873 | 1.16 | 213 | 28 | 258 | 34 | 47 | 06 | 1122 | 1.49 | 1102 | 1.47 | 428 | 57 | 239 | 32 | 446 | 59 | 268 | 36 | 64 | 09 | 1926 |
| 03 | | 1318 | 91 | 12 | 13987 | 164 | 22 | 2244 | 125 | 17 | 1041 | 1.38 | 2950 | 1053 | 1.40 | 450 | 60 | 181 | 24 | 50 | 07 | 1089 | 1.45 | 1201 | 1.60 | 630 | 84 | 242 | 32 | 414 | 55 | 250 | 33 | 94 | 13 | 1927 |
| 02 | | 1196 | 94 | 12 | 7141 | 127 | 17 | 3189 | 93 | 12 | 793 | 1.05 | 2539 | 928 | 1.23 | 177 | 23 | 246 | 33 | 56 | 07 | 1130 | 1.50 | 1268 | 1.68 | 682 | 90 | 303 | 40 | 418 | 55 | 274 | 36 | 90 | 12 | 1928 |
| 01 | | 895 | 56 | 08 | 9512 | 68 | 09 | 4037 | 222 | 30 | 1002 | 1.34 | 3140 | 1300 | 1.74 | 697 | 93 | 240 | 32 | 64 | 09 | 1168 | 1.56 | 1697 | 2.27 | 528 | 71 | 279 | 37 | 444 | 59 | 312 | 42 | 81 | 11 | 1929 |
| 01 | | 1059 | 57 | 07 | 10738 | 147 | 19 | 1388 | 36 | 05 | 647 | 85 | 2349 | 827 | 1.09 | 128 | 17 | 166 | 22 | 49 | 06 | 1149 | 1.52 | 1523 | 2.01 | 476 | 63 | 295 | 39 | 475 | 63 | 317 | 42 | 108 | 14 | 1930 |
| 01 | | 735 | 60 | 08 | 7771 | 63 | 08 | 3150 | 90 | 12 | 826 | 1.07 | 2485 | 981 | 1.27 | 337 | 44 | 172 | 22 | 49 | 06 | 1259 | 1.62 | 1738 | 2.25 | 517 | 67 | 300 | 39 | 442 | 57 | 302 | 39 | 95 | 12 | 1931 |
| 02 | | 1069 | 81 | 11 | 12238 | 129 | 17 | 2280 | 84 | 11 | 556 | 73 | 2368 | 882 | 1.16 | 184 | 24 | 125 | 16 | 42 | 06 | 1287 | 1.69 | 1761 | 2.31 | 496 | 65 | 292 | 38 | 439 | 58 | 328 | 43 | 116 | 15 | 1932 |
| 02 | | 1019 | 87 | 11 | 6350 | 48 | 06 | 2230 | 49 | 06 | 579 | 76 | 2527 | 824 | 1.09 | 532 | 70 | 102 | 13 | 45 | 06 | 1194 | 1.57 | 2090 | 2.76 | 502 | 66 | 269 | 35 | 409 | 54 | 335 | 44 | 100 | 13 | 1933 |
| 02 | | 1276 | 83 | 11 | 11383 | 96 | 13 | 1565 | 37 | 05 | 422 | 56 | 1674 | 687 | 91 | 92 | 12 | 113 | 15 | 42 | 06 | 1273 | 1.69 | 1905 | 2.52 | 471 | 62 | 282 | 37 | 417 | 55 | 303 | 40 | 96 | 13 | 1934 |
| 02 | | 1302 | 60 | 08 | 9907 | 99 | 13 | 1632 | 50 | 07 | 485 | 65 | 2480 | 765 | 1.02 | 222 | 30 | 74 | 10 | 53 | 07 | 1338 | 1.79 | 1979 | 2.65 | 373 | 50 | 258 | 34 | 444 | 59 | | | | | |

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